TOSCO LOAN GUARANTEE PROPOSAL

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

FIRST SESSION

ON

DEFENSE PRODUCTION ACT LOAN GUARANTEES TO TOSCO CORPORATION FOR TOSCO'S PART IN THE COLONY SHALE OIL PROJECT IN WESTERN COLORADO

OCTOBER 7, 1981

Printed for the use of the
Committee on Banking, Housing, and Urban Affairs

[97-34]

U.S. GOVERNMENT PRINTING OFFICE
85-595 O WASHINGTON: 1981

524-52

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

JAKE GARN, Utah, *Chairman*

JOHN TOWER, Texas	HARRISON A. WILLIAMS, JR., New Jersey
JOHN HEINZ, Pennsylvania	WILLIAM PROXMIRE, Wisconsin
WILLIAM L. ARMSTRONG, Colorado	ALAN CRANSTON, California
RICHARD G. LUGAR, Indiana	DONALD W. RIEGLE, JR., Michigan
ALFONSE M. D'AMATO, New York	PAUL S. SARBANES, Maryland
JOHN H. CHAFEE, Rhode Island	CHRISTOPHER J. DODD, Connecticut
HARRISON SCHMITT, New Mexico	ALAN J. DIXON, Illinois

M. DANNY WALL, *Staff Director*
HOWARD A. MENELL, *Minority Staff Director and Counsel*
DEXTER L. BELL, *Assistant Counsel*

CONTENTS

WEDNESDAY, OCTOBER 7, 1981

	Page
Opening statements of:	
Senator Schmitt	1
Chairman Garn	3
Senator Proxmire	3

WITNESSES

John D. Lyon, Executive Vice President of Tosco Corp.; Chief operating officer of Oil Shale Co., Los Angeles, Calif	4
Background	5
Government assistance necessary	6
Prepared statement	9
Jan W. Mares, Assistant Secretary for Fossil Energy, U.S. Department of Energy; Accompanied by: Ralph Blackwell, Head, Defense Production Act Task Force; and Leonard Rawicz, Assistant General Counsel for Procurement and Financial Incentives	19
Colony Project ready for commercial development	19
Prepared statement	21
The Oil Shale Corp. agreement	22
The selection process	24
Specific issues	27
George Marienthal, Principal Director, Logistics & Materiel Management, Office of the Secretary of Defense	32
Guaranteed military fuel specifications	33
Prepared statement	33
Panel discussion:	
Cost for development	52
Effect of a loan guarantee	52
Thomas DiLorenzo, Assistant Professor of Economics, George Mason University	53
Popularity of loan guarantees	53
Backdoor financing	54
Prepared statement	56
Robert Roach, Washington Representative, Environmental Policy Center; Accompanied by: Kevin Markey, Denver Friends of the Earth	69
DOE's responsibility	70
Protect public investment	73
Environmental problems	73
Prepared statement	76
Financing	77
Protection of the public's investment	80
Consultation with State and local organizations	81
Environmental monitoring	83
Conclusion and recommendations	85
Supplement to prepared testimony	87
Tosco basis for computing collateral value	91
Chart outlying who will finance The Colony Project?	92
Panel discussion:	
Catch-22 situation	93
Other capital investments	94
Negotiations analyzed	95
OMB's role	96

Panel discussion--Continued Page
Establishing a separate corporation 97
Collateral secured to the government 99
Uncertainties concerning environmental protection 100

SUPPLEMENTAL DATA SUPPLIED FOR THE RECORD

U.S. General Accounting Office, letter and report on the loan guarantee contract between The Oil Shale Corporation and the Department of Energy. 35
U.S. Chamber of Commerce, article on Federal Lending Programs by Ronald D. Utt, Associate Chief Economist 60
Rocky Mountain News, newspaper article entitled "Any takeover of Tosco could cancel subsidy" by Al Gordon 71

TOSCO LOAN GUARANTEE PROPOSAL

WEDNESDAY, OCTOBER 7, 1981

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, D.C.

The committee met at 9:35 a.m., in room 5302 of the Dirksen Senate Office Building; Senator Harrison Schmitt presiding.

Present: Senators Schmitt and Garn.

OPENING STATEMENT OF SENATOR SCHMITT

Senator SCHMITT. The hearing will come to order.

As our witnesses are here, we will ask them to come and take their place at the table, so the questions can be asked individually and collectively.

I want to first of all commend the Chairman, Senator Garn, in his absence—and he will be here later—for holding these hearings on proposed synfuels loan guarantees under the Defense Production Act, to the Tosco Corp.

There are several serious questions raised by these guarantees. As I hope everybody is aware, loan guarantees are promises by the Federal Government to pay any debts that the beneficiary—in this case Tosco—might be unable to repay to its lenders at some future time. These guarantees will provide security to lenders, who will therefore extend loans to Tosco because of the existence of the guarantees. Tosco claims that without the loan guarantees, it cannot proceed with the project—or at least that is my understanding.

The proposal deserves very careful scrutiny for at least three reasons:

First, the net effect of these guarantees is to siphon capital—which is extremely scarce and expensive today—from other commercial enterprises, to projects favored by the Federal Government. After all, if Tosco's plans are commercially viable, the loan guarantees would not be necessary.

In short, these loan guarantees become a form of Government credit allocation, which inherently can aid one venture at the expense of another.

Second, such loan guarantees exacerbate high interest rates. High interest rates are of much concern today to millions of Americans in a wide variety of enterprises—homebuilders, automobile dealers, farmers, small business owners, and individual Americans, as well. These high interest rates are, in large part, the result of a continuous period of many years of Federal involvement in the money markets: Borrowing on the order of $60 billion a year,

directly, through direct deficit financing; and another $50 to $60 billion in off-budget activites, such as loan guarantees.

The loan guarantees which we are discussing today do eliminate risk and create, to some degree, "dream loans" for lenders. They will guarantee that Tosco will get all the credit it wants, up to $1.125 billion.

The administration is embroiled in a struggle to restrain the budget, especially with an eye to limiting the 1982 deficit to $42.5 billion. Because high Federal borrowing, which puts high demand on the limited supply of money—and the Federal Government, when it wants money, goes to the head of the line and pays whatever interest rate is demanded—interest rates are not only pushed up, but held up.

Yet, we have before us now a proposal to use the Federal Government's power to lock up $1.125 billion of that money supply for the Federal Government's purposes. $1.125 billion is the equivalent of 2.68 percent of next year's projected deficit.

Now, President Reagan recently announced cuts of $2 billion in defense outlays, and proposed cuts of 12 percent in controllables and budgets, such as the one that I have responsibility for in Labor, Health, Human Services, and Education—all of this in order to reduce Federal demands for credit.

$1.125 billion is 56 percent of the $2 billion he has asked to be cut in defense outlays. This means that the loan guarantee proposal would negate—if approved—the effect of the defense cuts by over half.

There is a question of whether we really want to cut defense to keep borrowing down, while allocating scarce capital on a venture that might be able to compete on its own in the capital markets.

Third, there is some indication that Exxon is fully able to proceed as planned with the oil shale plant, whether Tosco gets the loan guarantees or not. If this is true—and I hope today's hearings will indicate one way or the other whether this is true—then our Nation will be just as secure, just as independent, and just as strong in synfuels if we withhold the guarantees as if we issued them. The only difference will be whether one company benefits from the Federal Government's financial strength or whether it does not.

Finally, I should also add that the Defense Production Act is an act under the jurisdiction of the Banking Committee. This act extends very broad powers to the executive branch, and was only used in a limited fashion since the 1950's; but nevertheless, it extends very broad powers, and it can potentially be very useful as we seek essential independence, not only in energy but, maybe more importantly now, in strategic materials.

I believe it is very important that the Banking Committee continue to exercise very careful oversight of the exercise of this power. And many, I hope, are aware of the extention of that act's authorization for only 1 year, so that this committee could review the Defense Production Act in a context of strategic mineral dependence.

With that general overview, I would like to proceed to the witnesses and their opening statements.

I would ask that each of you try to limit your statement to about 5 minutes, and that your entire prepared statement, if there is one, will be included in the record.

The first witness is John D. Lyon, executive vice president of Tosco Corp., and chief operating officer of the Oil Shale Co., Los Angeles, Calif.

Before you begin, Mr. Lyon, let me insert in the record, as though read, the statement of the Chairman of our Committee, Senator Garn. He may wish to read it when he comes, but at least it will be in the record at this point. Also Senator Proxmire has submitted a statement.

OPENING STATEMENT OF CHAIRMAN GARN

The CHAIRMAN. The Department of Energy has reached an agreement to issue $1.12 billion in Defense Production Act loan guarantees to Tosco Corp. for Tosco's part in the Colony shale oil project in western Colorado. We have asked the parties to the agreement to testify before the committee today, as we conduct oversight over DPA financial programs.

The Colony project, in which Tosco will be joint venture partners with Exxon Oil Co., will be the first commercial scale synthetic fuel plant in the Nation. The Colony project will lead the way as our country invests in synfuels plants and technology.

Tosco has been working to create synfuel technology since 1965. It was chosen by the Department of Energy as a company having one of the best methods of shale oil refining available.

The loan guarantees to be issued cannot be examined only as to their economic justification but must clearly be examined in light of national security considerations. The project will provide 10,000 barrels per day of fuel to our Armed Forces. This fuel will be available to us in times of war or embargo and will be set and in production because the project is safe in the heart of the American Continent. The insurance a producing oil project provides—safe within our borders—is a factor to consider that transcends economic considerations. Few things rank as important in the list of Government's duties as the duty to provide a secure energy source for its people.

Moreover, the economic benefits of decreasing our oil imports are obvious.

Our first witness today will be Mr. John Lyon, vice president of Tosco and chief operating office of Oil Shale Co. Mr. Lyon has overseen the development of Tosco since 1965 as it has invented a unique technology for refining oil shale.

Also with us are Mr. Jan Mares of the Department of Energy which negotiated the contract, as well as Mr. George Marienthal of the Department of Defense, another party to the agreement. Our other witnesses are Mr. Thomas DiLorenzo, assistant professor of economics at George Mason University, and Mr. Robert Roach of the Environmental Policy Center in Washington.

STATEMENT OF SENATOR PROXMIRE

Senator PROXMIRE. The loan guarantee to Tosco under the Defense Production Act raises several disturbing questions which are

generic to the whole issue of Federal assistance to synthetic fuels plants.

The first is the question of whether the taxpayers of the United States should be called upon to assist a project largely supported by one of America's largest and most profitable corporations.

The Colony oil shale project in Parachute, Colo. is a joint venture between Exxon Corp. and Tosco, America's largest independent oil company.

The loan guarantee given to Tosco is set at 75 percent of its 40 percent total share of the project. This is the maximum amount which Tosco could receive under the terms of the Energy Security Act.

Major unresolved questions surround the issue of whether or not DOE ever asked how much aid was really necessary for the project to be undertaken, and critics have stated that Exxon will probably continue this project even if no loan guarantees are provided to Tosco.

According to a recent article in the Rocky Mountain News, DOE officials "admitted that the Department never asked Exxon, Inc., if it would build Colony alone should Tosco fail to receive the Federal guarantees."

I am further concerned that the collateral which Tosco put up was largely limited to their share of the project, which is the same money which was guaranteed by DOE. Should the project fail DOE is left only with its share of the project which may be worthless.

The loan guarantee program was meant to insure that certain priority synthetic fuels technologies would be funded even where the risks to private industry were large. It was not intended to provide that particular companies participate in synthetic fuel projects. However, this is the case with the Tosco loan guarantees. I see no reason for Tosco to receive a guarantee just because the money is available and it seems to be a deserving company.

The other important flaw in this loan guarantee is that it runs counter to the sensible policy of the Reagan administration which seeks to reduce the amount of off-budet expenditutes. At a time when the administration is cutting down the loan guarantees to farmers and small businesses, there is no reason to continue to assist this multibillion-dollar project which has met no test of need.

If the DOE and the Synthetic Fuels Corporation are to continue to enjoy the support of Congress and the American people they must do a better job of examining which projects deserve assistance.

STATEMENT OF JOHN D. LYON, EXECUTIVE VICE PRESIDENT, TOSCO CORP., AND CHIEF OPERATING OFFICER, OIL SHALE CO., LOS ANGELES, CALIF.

Mr. LYON. Good morning, Senator Schmitt.

As you said, I am John D. Lyon, executive vice president of Tosco and chief operating officer for oil shale. My division is responsible for all of Tosco's oil shale activities, including its participation in the Colony shale oil project.

BACKGROUND

Senator, the questions which you have raised are indeed important questions, and we very much welcome the opportunity to discuss those with you. I have a prepared statement which gives a great deal of the extensive background of Tosco, of the Colony project, and the reasons why we believe that this loan guarantee is not only appropriate, but is highly desirable for defense purposes and for the promotion of the national security and the betterment of the national economy.

In view of the desirability of expediting the proceedings, I will not read that prepared statement in full, but I would commend it to you, to provide that background.

Let me briefly describe some of Tosco's background and the Colony oil shale project, as they relate to the points that you particularly suggested need to be addressed by this hearing.

The key point, I think, Senator—you have suggested that if this project were economically viable, no loan guarantees would be needed. It is our belief that the project is economically viable—we have little doubt of that—and that loan guarantees are needed. Let me give you the background that justifies that plea.

Tosco was founded as the Oil Shale Corp. in 1955 for the purposes of developing processes and technology, and then of commencing commercial production of shale oil in the United States. The U.S. deposits of shale oil in the Green River formation, and particularly the Piceance Basin of Colorado, are the world's largest single hydrocarbon resource.

This country has been blessed with mineral resources beyond those of most other countries. And in respect of that, we are particularly fortunate. The existence of those deposits has been known for over 80 years, but there has never been in the United States—and there is not today—commercial-scale production of shale oil. There is commercial-scale production of shale oil in the Soviet Union and in the People's Republic of China. There has, in the past, been commercial production of shale oil in France, Great Britain, and in Spain, but never in the United States. We have devoted ourselves for 26 years now to bringing that about.

The reason there has never been any commercial production in the U.S. is that the initial capital expenditures required to economically process the oil shale are extremely large. The projects are of a very large scale. The Colony project, for example, was founded by Tosco in 1964. The actual commencement of commercial construction occurred in June of 1980; and we are projected for mechanical completion in the fourth quarter of 1985, achievement of full onstream capacity in 1987. That is a very long period of time over which to make extremely large capital expenditures, with no return.

The first project, the pioneering project, encounters the unusual difficulty of obtaining financing for that very large capital expenditure. Once that first project is onstream and has demonstrated that it is commercially sound, that it is economically viable, that its socioeconomic impacts can be effectively mitigated, then we anticipate that further projects will indeed enjoy normal and customary access to capital markets, and will require no Federal assistance.

But that demonstration must be given—and it can only be given at a commercial scale. Once that demonstration has been given, then this hydrocarbon resource which has been effectively locked up until now will be unlocked and will be available to promote our national security—and I need not call attention to recent events, to demonstrate the folly of reliance upon unstable areas for our Nation's hydrocarbon needs—and it will be available to redress the balance of payments caused by the large importation of petroleum from abroad.

Coupled with development of conventional oil and gas production, and with extensive conservation measures, they can enable us to reduce—or indeed, some day, even to eliminate—that reliance.

GOVERNMENT ASSISTANCE NECESSARY

Now, no brand new, major industry which has the characteristics which I have described—that is, the requirement of extremely large front-end capital expenditures before revenues are received—has been built in the United States without some form of Government assistance, starting with the railroads, going through all of the other transportation modes—actually, starting with the canals, if you want to go back that far.

All of these industries have required some assistance. The oil shale industry is no different. There are very few major corporations in the United States which could, from their general resources, bankroll a full-scale oil shale plant. Fortunately, Exxon, our co-owner of the Colony project is one of those.

Our previous partner in the Colony project, Atlantic Richfield Co., which sold its share to Exxon, withdrew from that project because its capital availabilities were not adequate to the needs—and that is not a small corporation, by any means.

In the absence of some form of Government participation in the first generation of shale plants only, the question of whether or not such plants will ever come into existence will be left solely and entirely to the discretion of an extremely few large corporations.

This loan guarantee that we are today discussing was, as you pointed out, granted under the Defense Production Act. Under that act, Tosco has agreed to provide to the Defense Department 10,000 barrels a day of defense fuel, which can be made wholly of synthetic oil shale, of a blend of oil shale and conventional petroleum, or by exchange, entirely of conventional petroleum, as deemed most advisable by the Department of Defense. Those will be sold at prevailing market prices.

The oil shale has the special advantage over all other sources of alternative fuels that it is fully compatible with the existing refining, transportation, and consumption system. Shale is not materially different than many conventional crude oils. For that reason, it may be used interchangeably with them, and does not require extensive infrastructure adjustments that some other alternate sources would need.

It has been suggested that Exxon would go forward with the project all by itself, whether or not Tosco was able to come up with its financing. The best evidence on that speculation is the testimony of Mr. Fred Dennstedt, senior vice president of Exxon Corp.,

U.S.A., before the House Energy and Commerce Committee, where he was asked, 2 weeks ago, the following:

The question does get raised by some critics of Government involvement that you people would go right ahead, Exxon would, with this or other projects if we were not involved. Does Exxon have a policy that it would immediately start up this project if there were a failure of Congress, for example, to approve it?

Mr. Dennstedt said: The direct answer is no. We have no policy, and such a decision has not been made.

As I am sure you know, there are provisions in the agreement that John Lyon mentioned—Senator, that is the operating agreement between the Oil Shale Corp. and Exxon—for either party to assume obligations for the Colony Shale Oil Project if the other party did not make cash calls on time.

There are provisions for either party to have the right, but not the obligation, to take over the project. That situation has not arisen, and therefore, we have not made any decision as to what we would do under those circumstances.

Senator, Tosco is committed to make this a model and demonstration project. This is a project which was founded by us; the technology was developed by us, not by the Government, not by a major oil company or any other institution. More than $100 million has been expended on the development of that technology.

Tosco is the only institution, private or Federal, which has continuously devoted itself to the production of this resource, over a period of 25 years. We are also the holder of oil shale lands beyond those in the Colony project. If the Colony project is not a success, if it is not economically viable, if it makes a mess of the environment, if it makes a mess of western Colorado, then there is no circumstance under which further development of our other assets, after completion of the Colony project, is going to go forward.

Therefore we, and Exxon for similar reasons, are devoted to making this a model project.

In connection with the loan guarantee, we have undertaken to license that technology to the Government and to all commercial parties who wish to go forward with development, and, as a part of our contract, to make that licensing available on commercial terms. And that, too, will serve to insure the opening up of this resource.

Tosco, for reasons given in the prepared statement, is wholly unable to finance its full participation by itself. The total amount of the Tosco share of the cost is more than seven times our net worth. By scraping and straining, we are confident that we will be able to finance 25 percent of our share of the project beyond the 75 percent covered by the loan guarantee, and we are devoting the major part of the corporation's resources over the period of this construction, to that effort.

For that reason, we believe, Senator, that the project is commercially viable, that it is vital to the Nation's security and economy, and that the loan guarantee is both necessary and appropriate.

Thank you.

Senator SCHMITT. Thank you, Mr. Lyon.

You just once again confirmed Schmitt's law 59. That is: A summary of prepared testimony takes twice as long as the reading of prepared testimony. [Laughter.]

I appreciate those comments.

Mr. Mares.

Statement of

JOHN D. LYON
EXECUTIVE VICE PRESIDENT
TOSCO CORPORATION

Before the

COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS
U.S. SENATE

October 7, 1981

Mr. Chairman and members of the Committee:

My name is John D. Lyon. I am Executive Vice President of Tosco Corporation and Chief Operating Officer for oil shale. My Division is responsible for Tosco's oil shale activities, including the Colony Shale Oil Project. I am pleased to have the opportunity to discuss with this Committee our Colony Shale Oil Project and the loan guarantee agreement recently entered into with the Department of Energy. Tosco has worked since 1965 to insure that the Colony Project will be a model of success and a demonstration of the highest standards of environmental compliance and socioeconomic planning which future commercial projects can follow with confidence.

Let me say at the outset that Tosco considers it a challenge and responsibility to be included in the "fast-start" synthetic fuels commercialization program under the Defense Production Act amendments enacted in June of 1980. At the time the legislation establishing the "fast-start" program was being debated in the Congress, this Committee recognized that there are only two methods of reducing the nation's dependence on oil

imports and stretching domestic oil reserves: to consume less and to develop additional sources of energy. We believe that the Colony Project is precisely the type of advanced alternative energy project which constitutes a crucial initial step in furthering this Committee's goals of decreasing the nation's dependency on foreign sources of oil, and of developing additional sources of energy.

Tosco was founded in 1955 to develop commercial technology for the recovery of oil, gas, and other products from oil shale. Since that time, the company has grown to become a diversified energy company engaged in refining and marketing of petroleum products, coal production, and the development of clean fuels from oil shale, coal, and other solid materials. The company is the Nation's second largest independent refiner of gasoline, with refineries located at Bakersfield and Avon, California, El Dorado, Arkansas, and Duncan, Oklahoma and a system-wide capacity of more than 260,000 B/D.

The Tosco II retorting process which will be used in the Colony Project is proprietary technology developed by Tosco. Tosco maintains an extensive research and pilot plant facility at Golden, Colorado, where we are continuing to develop advanced processes to recover fuels and other products from oil shale, coal, and other solid materials.

Since Tosco formed the original Colony oil shale venture in 1964, Tosco's technical and management staffs have continuously played a key role in all aspects of the Colony venture work. From 1966 through 1968, a period during which the most

significant technological advances were made in the Tosco II process and oil shale mining techniques, Tosco was the operator of the Colony mine and semi-works retorting plant. From 1970 through 1974, Tosco supervised and coordinated the commercial design studies on retorting, oil upgrading, mining, spent shale disposal and environmental and socioeconomic planning which have led to a detailed understanding of all facets of a commercial facility.

The Colony Project is located in Garfield County, Colorado, near the town of Parachute. The current Colony owners, Tosco and Exxon Corporation, are in the process of building a full-scale commercial shale oil complex which will produce 48,300 barrels per stream day of hydrotreated shale oil and other products. The complex will employ underground mining, surface crushing and retorting, and onsite hydrotreating of crude shale oil. The hydrotreated shale oil produced by the Project will be a premium refinery feedstock for processing into jet fuel, high octane unleaded gasoline, diesel fuel, and other light products. The products will be particularly valuable in meeting the Nation's needs for military and civilian transportation fuels.

The Colony Project has taken a careful and thorough approach to environmental issues and is strongly committed to environmentally sound development. Tosco took the lead in the design of the environmental monitoring program and the preparation of the environmental impact analysis for the Project. Major environmental tests, demonstrations, and studies, starting as

early as 1965, have been managed as an integral part of developing and demonstrating the mining, retorting, and reclamation processes. Based on five years of detailed analysis, a Final Environmental Impact Statement for the Project has been issued by the Bureau of Land Management.

Additional outside scrutiny of environmental impacts has been provided by federal, state and local permit-granting authorities. The application and review processes for all major permits required for initial construction have been completed and the permits granted.

In anticipation of the local population growth which will be associated with the venture, Tosco and the Colony Project have completed extensive community development planning. Working with state and local officials, the Project has developed detailed projections of the socioeconomic impacts and designed a comprehensive socioeconomic impact mitigation and growth management plan. As part of the comprehensive plan, and pursuant to county approvals, the Project sponsors are developing a comprehensive new community near the Colony site, known as Battlement Mesa, to accommodate a total population of 25,000. In addition to the Battlement Mesa new community, Colony has a comprehensive program of assistance to existing communities.

Tosco first acquired the nucleus of the community development lands in the 1960's and led the Colony Project to pioneer new standards for industrial mitigation of socioeconomic impacts. Battlement Mesa will be a comprehensive model new community including a wide variety of housing types, a full

range of municipal and commercial services and facilities, a major open space system, recreational amenities, sites for public and semi-public uses, supplementary business areas, and tracts for office development. The new community has been designed to use cost-effective, state-of-the-art conservation, solar, and other renewable energy technology in order to provide a community-wide demonstration of innovative energy efficiency.

Battlement Mesa is designed to accommodate a total population more than twice the total population directly and indirectly associated with the Colony Project, including employees and contractors and their families, the indirect industrial employment population and their families and the indirect service sector population and their families. It will be open both to Colony workers and to others and is in no sense a "company town." The cost of constructing Battlement Mesa is being financed privately by the Colony owners and no federal loan guarantee funds will be used for this purpose.

The loan guarantee which Tosco has negotiated with the Department of Energy is an integral part of the financial plan for the Colony Project. The Operating Agreement entered into last year by Tosco and Exxon recognizes that Tosco expected to finance up to 75 percent of its share of project costs through a federal loan guarantee. Although Exxon committed to cooperate with Tosco in meeting the requirements for the loan guarantee, Exxon did not participate in the application or negotiations and will not participate in Tosco's guaranteed financing.

85-595 O—81——2

The financing made possible by the loan guarantee will enable the Colony Project to proceed on schedule with Tosco's full participation. Without the loan guarantee, the combination of Tosco's cash flow and corporate borrowing ability would be insufficient to provide the required funds. Tosco's full 40-percent share of the project costs will be just over $1.5 billion, an amount which is more than seven times Tosco's current net worth. Tosco's interest in the assets of the Project itself cannot secure conventional construction financing because of the perceived risks in a pioneer project of this magnitude.

With guaranteed financing to cover 75 percent of Tosco's share of the project costs, Tosco will be able to fund the remaining 25 percent of its share. This will maintain the balanced co-participation of Tosco and Exxon and will thus enhance the probability of successful execution of the Project. In particular, Tosco's participation will involve vital contributions to the Project in the areas of technology, environmental protection, and socioeconomic impact mitigation.

The commercially field-ready Tosco II process for shale oil recovery is the unique product of Tosco's innovation and insight. It is based on more than twenty years of pioneering technological innovation in which Tosco alone persisted. Tosco's active participation in Colony will assure that the Project has the full benefit of Tosco's ability to apply and continue improvement of the technology.

Tosco's role in assuring environmental protection and compliance will be equally vital to the project. The comprehensive environmental analysis and mitigation systems of Colony Project began with Tosco's revegetation studies in 1964, and Tosco has made an indispensable continuing contribution to these important aspects of the Project. Tosco's pioneering environmental work over sixteen years is a principal reason why the Colony Project holds, and can comply with, all of the environmental permits needed for current construction. Tosco's continued full participation in environmental policy management will be assured by the proposed loan guarantee.

The most unique contribution of Tosco to the readiness and success of the Colony Project is Tosco's pioneering and continuing work to define, manage, and mitigate the socioeconomic impacts of commercial synthetic fuel development. Tosco has in effect created a new technology in this field, which includes techniques for the basic definition of relevant data and computer-aided systems to gather and analyze the data with sufficient speed and accuracy to permit timely responses by management and government.

In addition to enhancing the probability that Colony will be an early model of successful oil shale commercialization, Tosco's participation in the Project through the loan guarantee will serve other national policy goals. Perhaps most importantly, it will permit a relatively modest sized independent refiner to participate in the initial stage of an important oil producing industry. In this manner the loan guarantee will comply with

the statutory mandate to "foster competition in the development of the Nation's synthetic fuel resources."

Furthermore, as a condition to receiving the loan guarantee, Tosco has entered into a commitment to supply the Department of Defense with 10,000 barrels-per-day of military specification fuels over a ten-year period at prevailing market prices. The supply contract is for the benefit of the Government and does not involve any price incentive or market protection for Tosco. The contract gives DOD the option to reduce or decline deliveries during any year without any obligation to compensate Tosco for refused deliveries. In the absence of the loan guarantee for Tosco there would be no assurance that defense fuels would be committed to the Government.

In consideration of the loan guarantee, Tosco has also agreed to make its proprietary technology used in the Project available to the government or its designee under license for use in similar projects. Thus, the loan guarantee for Tosco will assure that the technological fruits of commercialization are available for future projects.

Fiscally, the loan guarantee will serve the explicit statutory goal of "encouraging and supplementing" private capital investment. The federal guarantee will be limited to 75 percent of Tosco's 40-percent share of project costs. Tosco will fund the balance of its share of project costs on an unguaranteed basis, and Exxon will fund its 60-percent share of project costs entirely with private funds.

The loan guarantee documents also contain contractual undertakings to assure compliance with the environmental, regulatory, and socioeconomic standards. The contract reaffirms the Project's obligation to comply with all applicable environmental, health and safety laws, regulations and ordinances. The Project must also comply with all applicable permits and licenses, including the adoption of necessary environmental and socioeconomic impact mitigating measures.

Tosco has further agreed that the Project will comply with certain additional specific federal requirements. These include minimum wage standards, energy conservation standards, non-discrimination in employment, competition in contracting, and preferences for small business concerns and labor surplus areas in contractor selection.

A comprehensive series of monitoring requirements under federal, state, and local laws are also incorporated into and expanded upon by the Project Monitoring Agreement. This agreement establishes a framework for implementing the Government's broad rights of access to the Project and to project documents and will allow the Government to monitor closely the physical, financial, and regulatory progress of the Project.

In conclusion, we believe that our loan guarantee agreement with the Department of Energy will meet the principal statutory purpose under the Defense Production Act by developing a commercial source of defense fuels from domestic oil shale on the earliest practicable schedule. We also submit that the Project and the contractual arrangements will serve several other important

public policies, including the fostering of competition, environmental compliance, community impact mitigation, and the transferability of technology. In view of the limited and contingent nature of the loan guarantee, we consider it very likely that these substantial public benefits will be achieved with no actual cost to the Government.

Senator SCHMITT. And now, Mr. Mares.

STATEMENT OF JAN W. MARES, ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY, ACCOMPANIED BY RALPH BLACKWELL, HEAD, DEFENSE PRODUCTION ACT TASK FORCE, AND LEONARD RAWICZ, ASSISTANT GENERAL COUNSEL FOR PROCUREMENT AND FINANCIAL INCENTIVES.

Mr. MARES. Thank you. Senator Schmitt, with your permission I would like to submit my full statement for the record and briefly highlight what I consider to be its key points.

The Department's fossil energy office has been given the current responsibility for managing the alternative fuel loan guarantee and purchase commitments, and thus I am here representing the Department in this aspect.

With its passage of the Energy Security Act and the necessary appropriations under the authorities of the Defense Production Act and the Federal Nonnuclear Energy R. & D. Act, the Congress provided a mandate to push forward with a national synfuels capability. In carrying out the congressional directives, we have targeted those synthetic fuel projects which could move immediately into construction and begin producing a secure source of domestic fuels in the most expedient manner possible.

I would like to stress that all three projects—the Tosco and Union Oil shale projects and the Great Plains coal gasification project—are consistent with the administration's policy that our synfuels potential be developed without a large unnecessary burden on the Federal Treasury. In the Tosco case, for example, purchase of products will be made by the Defense Department at prevailing market prices as determined by DOD. These products would, of course, be purchased for defense purposes whether from Tosco or from other firms. Therefore, these agreements do not entail any budgetary outlays for incentives in the near term, and may, in fact, never require any at all.

It is also important to note that each of the projects involves risk on the part of the private sponsors—Tosco, for example, must risk its 25 percent equity share of its portion of the total cost of the Colony project. Because of this, the likelihood of successful project outcomes will be increased.

In general, there were several key points about the Tosco application that made it attractive as a candidate for a fast-start interim synfuels program:

COLONY PROJECT READY FOR COMMERCIAL DEVELOPMENT

First, the Colony project is ready for commercial development—that is, the design, engineering cost estimates, permit acquisition, and socioeconomic planning have essentially been accomplished. This is particularly important since the Department had targeted its solicitation at those projects which could move immediately into construction.

All necessary environmental permits have been secured.

Also, large-scale tests of the mining method to be employed have been made and the technique proved to be feasible. This is an especially important consideration in opening up a new resource.

And a particular key aspect in the project's favorable consideration was the advanced planning that has been accomplished in the area of socioeconomic impact mitigation.

During the congressional review of this agreement, discussions have often focused around several specific concerns. We are in total agreement with the Congress that an action of the magnitude of the Tosco agreement should receive fair public review. Therefore, I would like to deal briefly with each of these specific concerns.

First, regarding the participation of Exxon: Exxon is a major participant in the Colony project and is also the project's operator through one of its divisions. The question which has been asked most frequently concerns Exxon's intentions should Tosco not be able to participate.

As I have indicated in my statement, Mr. Chairman, this is an issue which cannot be answered until Exxon is actually faced with this situation. At that time, the company would undoubtedly take into account the timing, the money markets, its other projects, the oil situation, and other factors. None of these can be forecast today with a great deal of certainty. It is fair to assume, however, that, without Federal incentives, the timetable would slip significantly or the project could even suffer postponement or cancellation.

Senator SCHMITT. Mr. Mares, if I could interrupt, doesn't that seem an awful weak position for the Federal Government to be in to base this on surmise?

Mr. MARES. No, sir; I do not think that that is a weak position for the Government to be in. Exxon has not been called upon to make the decision. They have not made the decision, and until the situation is presented directly to them, I don't think it is appropriate to make a decision. The judgment of Congress was that it was important for these projects to go ahead, and this project was one of those that came forth as a response to the solicitation. It is ready to go.

Senator SCHMITT. Please proceed.

Mr. MARES. An additional issue involves use of the Federal Financing Bank. The agreement provides for the use of private markets to finance this guaranteed loan, and also provides an option for the use of the FFB. Because of the desire of the Treasury Department and considerations such as the lower interest rate available through the FFB, it is almost certain that it will be used for the first debt issuance—expected to be approximately $100 million. Tosco will issue several series of debt obligations over the next 5 years. The flexibility to use the FFB or the private credit market would appear to be the most prudent in view of the uncertainty of future market conditions.

Mr. Chairman, in concluding this overview, I would like to say from my own personal experience in working with members of the task force who negotiated this agreement, that the Department was fortunate in having their expertise. This is an action without precedent—it is the product of negotiations which took place over many months. The task force, in my opinion, deserves a considerable amount of credit for reaching what I believe is a good and proper agreement.

I or my colleagues will be pleased to answer any questions you or members of the committee may have.

[Complete statement of Mr. Mares follows:]

Statement of

Jan W. Mares
Assistant Secretary for
Fossil Energy

U.S. Department of Energy

Mr. Chairman and Members of the Committee:

It gives me great pleasure to appear before you today to discuss the Department's recent actions in the alternative fuels area, and specifically the loan guarantee agreement negotiated with The Oil Shale Corporation (Oil Shale), a wholly owned subsidiary of the Tosco Corporation.

As Assistant Secretary for Fossil Energy, my responsibilities include the management of these alternative fuel agreements. As I have indicated in previous Congressional appearances, I believe these agreements are among the most significant actions this Nation has taken in rebuilding its domestic energy security.

The Congress has provided the mandate to push forward with the development of a synthetic fuels industry by passing the Energy Security Act and the necessary appropriations under authorities of the Defense Production Act and the Federal Non-Nuclear Energy Research and Development Act of 1974. These actions were specifically targeted by the Department at those projects which could move immediately into construction, and which otherwise might have been unnecessarily delayed pending creation of the U.S. Synthetic Fuels Corporation.

Last February, when the President announced his Program for Economic Recovery, he included a commitment to ensure the development of a commercial synthetic fuels industry that could help replace imported oil with competitively-priced domestic fuels. In March, Secretary Edwards appeared before Congress and reaffirmed that the President's commitment and the Congressional mandate would be carried out in a timely and cost-effective manner.

The loan guarantee for the Oil Shale Corporation for its participation in the Colony Project, along with the award of a purchase commitment to the Union Oil Company and the conditional commitment to guarantee a loan for the Great Plains Gasification Associates' project represent the Department's response to these directives.

I would like to stress that all three projects are consistent with the Administration's policy that the development of our synthetic fuels potential need not be accompanied by a large burden on the Federal treasury. In the Oil Shale Corporation case, for example, purchase of products will be made by the Department of Defense (DOD) at prevailing market prices as determined by DOD. DOD, of course, would purchase these products for defense purposes whether from these or other firms. These agreements do not entail any budgetary outlays for incentives in the near-term, and in a time of rising energy prices, may not require any at all.

It is also important to note that each of these projects involve risk on the part of the private sponsors. Because they will fund construction with substantial portions of their own monies at risk, the likelihood of successful project outcomes will be increased.

The Oil Shale Corporation Agreement

At the risk of repeating what Members of the Committee may know, let me briefly define the Colony project and the assistance to be provided the Oil Shale Corporation under the loan guarantee agreement, recognizing that the negotiated agreement must lie before Congress for 30 continuous days before it can be implemented.

The Colony Project is located in western Colorado near the town of Parachute. The shale will be supplied from an underground mine opened in the rock formations from the side of a canyon wall. Mining will be done by the "room and pillar" technique adopted from long-standing use in similar rock formations. The shale will be crushed and retorted above ground using the TOSCO II proprietary process, and the shale oil will be upgraded on site to a synthetic crude oil suitable for refining. Projected to be in full operation by 1987, the project will produce 48,300 barrels of product per day, the vast majority of which will be moved to refineries by building connectors to existing pipelines.

The total estimated cost of the Colony Project, which TOSCO started in 1964, is $3.15 billion. Today, the Oil Shale Corporation is a 40 percent owner of the project, therefore its share of the cost is estimated at $1.48 billion. Under the agreement, the Federal Government will guarantee loans in amounts up to 75 percent of Oil Shale's eligible costs, or $1.1 billion. Oil Shale will provide the other 25 percent. The Exxon Corp. owns the remaining 60 percent of the project, having acquired it in 1980. Exxon did not request Government incentives for its portion of the project.

The overall agreement includes a purchase commitment under which Oil Shale will sell to the Department of Defense 10,000 barrels per day of required mobility fuels, specifically jet fuel (JP-4) and diesel fuels (DFM), for a period of 10 years. DOD also has the option of acquiring the shale oil itself prior to refining for testing purposes or having the synthetic crude oil derived from shale oil isolated and refined into DOD fuels. DOD will have rights to purchase certain amounts of fuel even if the Colony project fails to produce any product.

The Selection Process

The Department's selection of The Oil Shale Corporation and the subsequent negotiations of the loan guarantee agreement are best seen in an historical context. Once Congress mandated that DOE should move forward with an interim program prior to the activation of the Synthetic Fuels Corporation, the Department assigned specific personnel representing technical, legal, financial, procurement and environmental expertise. A draft solitication was developed during the summer of 1980 and issued for public comment. Following some modifications and clarifications, a final competitive solicitation was issued in October of 1980.

To be evaluated on the merits of their project, the proposers were first required to meet twelve qualification criteria. These criteria dealt with such concerns as the capability of the proposed plant to produce a product that could meet Defense Department requirements for mobility fuels as well as minimum commercial scale requirements without violating Congressional maximum scale limitations. Also, the criteria specified that the proposers have requisite licenses and permits in hand and have legal rights to appropriate sites and feedstocks.

Throughout the solicitation process, including several public meetings, potential applicants were advised that these criteria were fashioned to ensure that projects selected would be those ready to begin construction, rather than design concepts, thus reflecting the Department's understanding of the Congressional mandate for immediate action.

The solicitation provided for competitive sealed bids to determine if bids as proposed were acceptable, and if not, provided that the Government may select for negotiation proposers who submitted acceptable proposals as determined by the evaluation and the application of Program Policy Factors identified in the solicitation (such as stimulating development of a suitable range of synthetic fuels or a diversity of methods). This method of selection promoted free and open competition, yet preserved flexibility to structure a transaction based upon the individual factors involved.

In response to the solicitation, 10 proposals were received in November 1980. They represented a spectrum of effort ranging from a few handwritten pages to complete design and engineering efforts as well as legal and financial arrangements. Three proposals met the qualification criteria and merited full evaluation, although none were determined to be of sufficient quality to permit award without negotiations. Having passed the initial screening, these proposals then were evaluated in accordance with separate criteria to determine commercial readiness, project adequacy, environmental acceptability, cost, commercial viability, and the proposed financial assistance arrangements.

Two proposals, those of Oil Shale and the Union Oil Company, were selected for negotiations. A third project (for a coal-to-gasoline plant) was selected for negotiation to determine project readiness, and subsequently was determined to be at an insufficiently mature stage to enter into negotiations.

Negotiations were conducted by a special Task Force established within the office of the DOE Under Secretary. The chairman of that Task Force, Mr. Ralph Blackwell, and the Department's Assistant General Counsel for Procurement and Financial Incentives, Mr. Leonard Rawicz, are accompanying me today and are prepared to discuss in greater detail the selection and negotiating process.

In general, these were some of the key points about Oil Shale's application which made it attractive as a candidate for participation in the fast-start interim program:

- The Colony project is ready for commercial development; that is, the design, engineering, cost estimating, planning, acquisition of federal and local government permits, even the socioeconomic impact mitigation planning and commitments had essentially been accomplished.
- All necessary environmental permits had been secured. This aspect is particularly important, for as you may appreciate, the time and effort required to obtain such permits has been exceeding long.
- The mining of the resource had been fully tested on a large scale and had been proven to be feasible. While this may not be significant for a synthetic fuel derived from a commonly mined resource such as coal, it is important when considering a new resource.
- The Colony Project sponsors had already considered potential socioeconomic issues, had consulted at length with appropriate officials, and had identified and addressed ways of mitigating the impacts of the project. This included the development of a community with the necessary infrastructure, yet with safeguards to prevent the formation of a "company town."

Other factors also played a key role in the Department's favorable evaluation of the Oil Shale proposal. For example, the developer of the technology, TOSCO, while a relatively small firm within the refinery industry, will be a co-participant, thus providing the expertise and receiving the benefits of its farsighted development efforts.

Additionally, the involvement of Exxon, with its substantial project management expertise, provides greater likelihood that the resources necessary for proper management, including personnel as well as funds, would be available under potential adverse conditions. At the same time that the agreement is to provide a long term domestic source of defense fuels to DOD, it requires payment of only market price and limits Government exposure to a loan guarantee. If the project is successful — and we believe it will be given the extensive testing of the technology and the considerable degree of advance planning already accomplished -- the loan guarantee will never require the use of tax dollars to pay off the guarantee obligations.

Specific Issues

During the Congressional review process, discussion of the loan guarantee has essentially centered on several key concerns. We agree with the Committee that an action of the magnitude of the Oil Shale agreement should receive fair public review; therefore, I have attempted to address these specific concerns in more detail in this statement. I or my colleagues, or members of our staffs, will be available today and in the future to answer your questions in greater detail should you wish expanded explanations of specific points.

First, I will address the issues relative to Exxon. Exxon is a majority participant in the Colony Project, and is also the operator of the project through one of its divisions. Questions have been raised as to whether Exxon would proceed on its own, absent Oil Shale' participation. That can only be surmised. Certainly until such time as the

issue becomes real, Exxon cannot be expecteu to fully commit itself either way. The timing, the money markets, Exxon's other projects, the oil situation, all could influence such a decison. It is fair to assume that, without Federal incentives, the Colony Project timetable would slip significantly or could even suffer postponement or cancellation.

Another issue deals with safeguarding the Government's interest. First, the Department analyzed the necessity for assistance to Oil Shale. The Department's analysis of TOSCO's financial condition and its refining business indicated that the firm does not have the capacity to undertake the necessary additional financing for the Colony project absent some form of assistance. The same analysis indicated that Oil Shale should be able to provide its 25 percent equity share and carry the debt service required for a guaranteed loan under the vast majority of probable economic scenarios. The risk to the Government would be that under some combinations of adverse conditions, Oil Shale would not be able to survive the financing of the project.

In terms of protecting the taxpayer, the Department has obtained a number of rights in the event of a default by Oil Shale. First, all stock of the Oil Shale Corporation is pledged as collateral for the loan. Additionally, Oil Shale's pro-rata share of all project assets are also pledged. Because the Department did not consider this adequate collateral, additional properties of Oil Shale outside the project are pledged, and the parent corporation has agreed in the Tosco Funds Agreement to provide funding of Oil Shale's 25 percent equity share. Should Oil Shale default on the guarantee, the Government would have the right either to take over

Oil Shale's participation in the Colony Project, or as a lienholder, to participate in the liquidation of the assets. In the event of a default, Oil Shale, TOSCO, and Exxon are required to grant licenses and patents, technology, and other proprietary rights which are necessary for the completion and operation of the project.

The question has been raised regarding undue control by Exxon in the context of operating the project after a default by Oil Shale and the Government's stepping in to take its place. First, the Government is not the best entity to operate such a project. Second, it is normal that the majority owner has a greater voice in operations. Despite that, we have obtained certain concessions in the Operating Agreement between Exxon and Oil Shale to ensure that our position, in such an event, would be adequately protected, including (a) an obligation to provide notice to the Department if Oil Shale fails to pay its share of project expenses, and (b) to retain all significant unanimous consent provisions presently contained in the Operating Agreement in the event the Government succeeds to Oil Shale's interests in the Colony Project.

Regarding access to information, we are comfortable that the Government will be able to obtain sufficient information to ensure we can properly monitor the contract. Under the agreement, access will be provided to the Project site to determine the progress of the Project and to examine Project records and documents, including confidential data. We will have access to a wide range of information, involving technical, cost, financial, environmental, health and safety data. In addition, significant project milestones have been established which we can use

85-595 O—81——3

to gauge the project's progress. Periodic reports, including financial summaries, will be provided to the Government. The Government will also be provided with samples of products, waste materials, and discharges from the Project to test and evaluate.

As to socio-economic considerations, the Department has had contact with the Colorado State Government through the Governor's office, and in turn, with local officials. We have been open to their comments since the proposals were first received and have met with their representatives frequently. The Colony sponsors have voluntarily undertaken considerable impact mitigation efforts, many of them even before the Federal involvement began. I would also note that Governor Lamm has sent a letter to the President supporting both the Colony and Union projects.

A related issue is the geographical dispersion of the facilities. While this is desirable, the solicitation resulted in only the TOSCO and Union projects meeting the requirements of being truly ready to start construction. Both rely on a rich resource located in the same general area. Geographical dispersion, therefore, was a criteria which had to be viewed in light of actual project readiness.

An additional issue has been raised regarding use of the Federal Financing Bank (FFB). The Loan Agreement provides for the use of private markets to finance this guaranteed loan, and also provides an option for the use of the FFB. Because of the desire of the Treasury Department and considerations such as the lower interest rate available through the FFB, it is almost certain that the FFB will be used for the first debt issuance, which is expected to be approximately $100 million.

Additionally, guaranteed debt will be issued from time to time upon approval of DOE and with the concurrence of Treasury. However, Treasury has provided advance notice to DOE that the use of the FFB for this loan guarantee is a strong option. As structured, Oil Shale will issue several series of debt obligations over the next five years. The flexibility to use the FFB or the private credit market would appear to be the most prudent in view of the uncertainty of future market conditions.

This concludes my formal statement, Mr. Chairman. I would like to assure you that the Department's task force, headed by Mr. Blackwell, has worked very hard for many months to reach what I believe is a good and proper agreement. The Administration is fully supportive of the Congressional review and concurrence in this proposed award, and I or my colleagues therefore will try to answer any of your questions as completely as we can.

Senator SCHMITT. Thank you, Mr. Mares.

At different times, I doubt if there would be as many questions raised, but the times are tough, and it would seem to me that although the Department has made the decision that the project is commercially viable, it still made the contrasting decision that it won't go forward without a loan guarantee, and that second decision has been based on surmise, as I indicated before.

Can you explain for the committee why a project that you state is ready for commercial development requires this loan guarantee? Is it because the capital markets are so strapped at the present time?

Mr. MARES. There are two participants in this project, the Tosco company as well the Exxon Corp. Tosco submitted an application for the guarantee in order to allow them to borrow sufficient funds to proceed with the project. The concept of having guarantees available under the Defense Production Act is clear. It was a requirement. It is explicit from the Congress last summer, a year ago, that the Department should proceed. In fact, as you're probably aware, the GAO has just published a report which implies that the Department was not as expeditious in considering and negotiating these contracts as it should have been in compliance with the mandate of Congress.

So, as I say, Tosco requested the loan guarantee. Our financial analysis indicated that that was appropriate, in order to allow them to finance their participation in the project.

Senator SCHMITT. Well, I don't think there's anything in the mandate of Congress that says you should go ahead with something that potentially would go ahead otherwise without the Government's participation.

Mr. MARES. The judgment is we don't know whether it would go ahead or not. In our understanding as well as what has been stated in direct testimony by Exxon, is that their decision has not been made as to whether they would or would not go ahead without participation.

Senator SCHMITT. But hasn't Exxon made a corporate decision within the last 2 years that oil shale will be a major part of their corporate future?

Mr. MARES. They certainly made a decision to purchase an interest in this project, whether they have made a decision to go ahead or not. I think their testimony is they have not made that decision, Senator.

Senator SCHMITT. Thank you. There will be more questions later. Our next witness is George Marienthal, principal director, logistics and materiel management, Office of the Secretary of Defense.

Mr. Marienthal.

STATEMENT OF GEORGE MARIENTHAL, PRINCIPAL DIRECTOR, LOGISTICS AND MATERIEL MANAGEMENT, OFFICE OF THE SECRETARY OF DEFENSE.

Mr. MARIENTHAL. Thank you very much, Mr. Chairman. It is a great pleasure for me to be here this morning representing the Department of Defense.

Senator SCHMITT. I have a feeling we're going to be seeing a lot of each other over the next year or so.

Mr. MARIENTHAL. I hope that's good, sir.

Senator SCHMITT. Well, I hope it is too, because I do believe that in other circumstances where our national danger is quite a bit greater than it may be in terms of petroleum right now, it's greatest, that is, that the Defense Production Act and the Defense Department activities under that act are going to be a very important part of reaching solutions to the problems we face in strategic materials. But please go ahead on this issue.

Mr. MARIENTHAL. Senator, we believe we have a very fine energy program working within the Department of Defense from a national security point of view. We are very pleased with the agreements that the Department of Energy has signed on behalf of the U.S. Government to press forward with the development of synthetic fuels.

GUARANTEED MILITARY FUEL SPECIFICATIONS

In my statement I describe our four points supply assurance program, the second part of which is the guaranteed procurement of domestic synthetic fuel that will meet military specifications. And certainly those products that will be derived from the Tosco project will be able to meet military fuel specifications, in our opinion. We have done very well in our supply assurance program, and we're up to a level now of about 140,000 barrels a day of guaranteed source of supply.

The agreements under the Defense Production Act will raise that total significantly over the next 5 years. We are also very, very hopeful that there is no upper limit to the amount of synthetic fuel that can be produced and that we will continue to obtain more and more synthetic fuels under this program.

We were pleased last week to be able to testify before a House subcommittee and dealt extensively with a recent GAO report. In my statement I describe how the terms and conditions under the contract allow us to obtain either pure synthetic fuels or a blend or to trade for real petroleum products under those agreements and I go through the reasons for our coming to that conclusion.

As I said, Senator, we are very pleased that these agreements have been consummated from a national security point of view. We are very encouraged as those contracts form a vital element in our supply assurance program.

I would be pleased to answer any questions that you might have. Thank you.

[Complete statement follows:]

STATEMENT OF GEORGE MARIENTHAL, PRINCIPAL DIRECTOR, LOGISTICS AND MATERIEL MANAGEMENT OFFICE OF THE SECRETARY OF DEFENSE

Mr. Chairman and members of the committee, it is a great pleasure to present the views of the Department of Defense (DOD) concerning the synthetic fuel agreement between the United States Government and the oil shale corporation (TOSCO), particularly its importance to the DOD energy program. I am George Marienthal, principal director for logistics and materiel management, in the Office of the Secretary of Defense.

The Congress certainly deserves a great deal of credit for developing the Energy Security Act, the legislation that led to the successful culmination of this agreement and that with the Union Oil Company of California. Those agreements promise to lead to the rapid development of United States synthetic fuel production capability.

We applaud this committee for its foresight and steadfastness to forge ahead to create the beginning of the United States' synthetic fuels industry.

DOD interacted closely with the Department of Energy (DOE) from July, 1980, through August, 1981, to implement DOE's Defense Production Act (DPA) snythetic fuels program. The availability of snythetic fuel is an important part of the Department of Defense fuel supply assurance program. Under this program, we are committed to:

Secure domestic sources of crude oil from the outer continental shelf (OSC) and the naval petroleum reserves (NPR) to be refined to meet military product specifications. To date, we are counting on an assured supply of 138,000 barrels per day (B/D) from those sources.

Guarantee procurement of domestic synthetic fuel that meets military product specifications. Under the DPA's synthetic fuel agreement with Union Oil Company of California and Tosco, we are guaranteed 20,000 B/D diesel and jet fuels for ten years, We will receive 10,000 B/D beginning in 1983 from Union and 10,000 B/D beginning in 1985 from Tosco.

Continue to simplify the DOD petroleum procurement process.

Develop, as a last resort, the necessary regulatory tools and contingency plans to allocate fuel to DOD during supply disruptions.

The DPA synthetic fuel agreements will have brought our supply assurance program to the 158,000 B/D level by the mid-1980's. With continued cooperation from the Departments of the Interior and Energy on the OCS and NPR crude oil, we expect that these sources may peak at about 250,000 B/D. With the continuing efforts of DOE and the U.S. Synthetic Fuels Corporation, when it is declared operational, we are hopeful that the synthetic fuels portion or our supply assurance program will grow significantly, perhaps to 200,000 B/D, by the year 2000 or before. At that point, the DOD's liquid fuel requirement of 450,000 B/D will be met through guaranteed sources, reducing greatly our dependence on the variable petroleum market for defense fuels. In addition, the synthetic fuels portion of our supply assurance program may have the potential to grow in the future far beyond 200,000 B/D and not be physically limited to a production cap as we anticipate will be the case in OCS and NPR royalty oils.

In this regard, I would like now to address an issue raised in a September 10, 1981, letter report from the Acting Comptroller General of the United States concerning the Tosco agreement. It questioned the reasonableness of DOD's decision to purchase fuel products, under Tosco agreement, not necessarily derived from synthetic crude. I would like to expand upon three considerations that led to the decision that we will accept synthetic or petroleum based fuel products, or a mixture of both, that meet military product specifications to honor the 10,000 B/D commitment under the Tosco agreement. Namely, we believe that:

A synthetic fuels industry in not likely to emerge in the United States separate from the existing petroleum industry. Technical, logistical, and economic factors dictate that synthetic crude will be intermixed with petroleum crude to supplement the input to the U.S. fuel refining industry. If DOD were to insist on receiving 100 percent shale-derived product, we would be interfering unnecessarily in the free market place.

DOD needs an assured, stable, source of fuel supply. Our fuel logistics system cannot tolerate temporary halts in the flow of synthetic crude from any synthetic fuel project that may occur due to technical process difficulties. We must be guaranteed a constant flow of product to meet defense needs.

Synthetic crude production and refining capability may not always be in the same geographic area, and further may not be where DOD needs the product. A case in point is our requirement for marine diesel fuel (DFM). If produced exclusively from Colorado shale oil, we would have to pay unreasonably high transportation costs to physically move the fuel to the gulf and west coasts to meet our needs.

Consequently, we believe that we are justified to purchase and use a refined product that is not composed entirely of synthetic crude to meet defense needs, either due to commingling or blending of the synthetic fuel feedstock with crude oil feedstocks or due to exchanges.

In conclusion, Mr. Chairman, thank you for the opportunity to affirm that synthetic fuel production is an important element of the DOD energy program and, in this current instance, a specific source of fuel for national defense.

I will be pleased to answer any questions that the committee may have.

Senator SCHMITT. Thank you, sir. I will put into the record at this point a copy of the report from the General Accounting Office that you referred to.

[The information follows:]

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ENERGY AND MINERALS
DIVISION

September 10, 1981

B-204651

The Honorable James J. Blanchard
Chairman, Subcommittee on Economic
Stabilization
Committee on Banking, Finance, and
Urban Affairs
House of Representatives

Dear Mr. Chairman:

Subject: The Oil Shale Corporation Loan Guarantee
Contract (EMD-81-142)

Your letter dated August 7, 1981, requested that we examine various aspects of the recently signed loan guarantee contract between The Oil Shale Corporation (hereafter referred to as Oil Shale) and the Department of Energy (DOE). (See enc. III.) Specifically, you asked us to determine (1) whether all relevant provisions of the Defense Production Act of 1950, as amended (DPA), which authorizes the loan guarantee, were adhered to, (2) whether the act's mandate for the President to take immediate action to achieve synthetic fuels production was fully implemented, and (3) whether, in light of the findings above, we would recommend approval of this loan guarantee. Enclosures I and II contain the details of our findings.

As you know, on August 6, 1981, DOE signed a $1.112-billion loan guarantee contract with Oil Shale, a wholly owned subsidiary of TOSCO Corporation. This loan guarantee covers 75 percent of Oil Shale's estimated costs. It allows Oil Shale to participate on a 40-percent basis with Exxon Corporation in the design, construction, and operation of a 43,500-barrel-a-day commercial oil shale plant (commonly referred to as the Colony project). The plant, to be located in Garfield County, Colorado, is estimated to start producing about 24,150 barrels a day by late 1985 and reach full production in late 1987.

In addition to the loan guarantee, DOE and Oil Shale signed a purchase commitment. The basic commitment is for Oil Shale to supply the Department of Defense (DOD) 10,000 barrels a day of fuel for 10 years starting in October 1986. The fuel supplied for military use will be one-fifth jet fuel and four-fifths

diesel fuel and will be bought at market prices. The jet and diesel fuels do not necessarily have to be derived from oil shale. In addition, the Government has the right to refuse any purchases, to buy lesser amounts of jet and diesel fuel, or to buy syncrude from the oil shale plant at prices to be negotiated in lieu of purchasing products. The Government is not required to pay for any refused products.

Concerning your first question, we found that the loan guarantee contract is generally consistent with the requirements of DPA. However, it is questionable whether three aspects of DPA were fully adhered to.

The first aspect relates to the requirement that financial assistance be for synthetic fuels to meet national defense needs. Although on June 27, 1981, the Secretary of Defense certified that DOD needs the project's synthetic fuel product for the national defense, we noted that the contract suggests otherwise. The contract calls for DOD to purchase at market prices fuels which are not necessarily derived from the syncrude from Oil Shale, unless DOD exercises an option to purchase syncrude directly.

Another aspect is the policy statement regarding geographic dispersion. This statement was not met. The Union Oil Company project and Colony project, the only two projects to be selected by DOE for negotiation, use shale oil in the same geographic area. According to DOE, they are the first synthetic fuels facilities which can be available to start construction within one year in the United States and thus help to achieve early production, another objective of the act. Geographic diversification of the selected projects was among the final selection factors applied by DOE to evaluate the proposals that were submitted. However, DOE states that the geographical dispersement policy is a goal to be sought "when practicable" and is not an absolute requirement for the award of financial assistance under DPA. DOE also notes a practical problem that significant quantities of high-grade shale oil resources are located in a single geographic area and the cost of transportation requires the location of the production facilities to be close to the shale mine.

The final aspect, which is the subject to your second question, regards whether immediate action was taken to achieve synthetic fuels production for defense needs as required by DPA. While immediate actions were taken after enactment of the DPA amendments to put a process in place for implementing the financial assistance program and we did not find any substantial periods of inactivity, questions can be raised whether the 13-month time frame for awarding the contract can be considered "immediate action to achieve production of synthetic fuels to meet national defense needs." However, due to time constraints, we were not able to analyze the advantages and

disadvantages of alternative approaches which might have reduced the overall time frame of the award.

Your third question was whether we would recommend approval of the loan guarantee contract based on our work to date reviewing the contract's compliance with DPA. As indicated above, the contract is generally consistent with DPA requirements. Other than that conclusion, however, any recommendation we could make would have to be predicated on our review of the Administration's consideration of other critical factors such as Oil Shale's ability to repay the loan, the status and risk associated with the technology involved, and the degree of protection afforded the Government under the contract.

During the period August 19, 1981, through September 4, 1981, we reviewed the Oil Shale loan guarantee contract in an effort to address the questions asked by examining the contract and DOE files related to it, the Oil Shale/Exxon operating plan, and pertinent legislation. We also obtained information on the contract by interviewing officials at DOE, the United States Synthetic Fuels Corporation, the DOD, the Department of the Treasury, and the Office of Management and Budget (OMB). Officials in the State of Colorado, and Garfield County, Colorado, where the project is to be located, were also contacted to obtain their views on the contract. Because of time constraints, we necessarily limited our work to an examination of each major provision of the contract for consistency with the 15 requirements and a policy statement of the DPA amendments. Also, we were not able to analyze the contributions of the various agencies to the contract nor the advantages of alternative approaches which might have reduced the overall time frame for making the award.

In order to meet the requested time frames, we did not obtain official agency comments. In addition, unless you publicly announce its contents earlier, we do not plan further distribution of this report until 30 days from the date of its issuance. At that time, we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,

J. Dexter Peach
Director

Enclosures - 3

ENCLOSURE I ENCLOSURE I

WERE THE REQUIREMENTS OF THE

DEFENSE PRODUCTION ACT OF 1950,

AS AMENDED,

ADHERED TO

FOR THE OIL SHALE CORPORATION CONTRACT?

The loan guarantee contract with The Oil Shale Corporation (Oil Shale) is generally consistent with the requirements of The Defense Production Act of 1950, as amended, (DPA). However, it is questionable whether three aspects of DPA were fully adhered to.

The first relates to the requirement that financial assistance be for synthetic fuels to meet national defense needs. Although on June 27, 1981, the Secretary of Defense certified that the Department of Defense (DOD) needs the project's synthetic fuel product for the national defense, we noted that the contract suggests otherwise. The contract calls for DOD to purchase from Oil Shale fuels at market prices which are not necessarily derived from the syncrude, unless DOD exercises an option to purchase the syncrude directly.

The second aspect regards whether immediate actions were taken to achieve synthetic fuels production for national defense needs. While immediate actions were taken after enactment of the DPA amendments to set a process in place for implementing the program authorized, it is questionable whether the process was as timely as possible. Due to time constraints, we were unable to analyze the potential advantages and disadvantages of alternative approaches which might have reduced the overall time frame for making awards.

The policy statement regarding geographic dispersion of facilities was not met because the two awards under DPA are in the same geographic area. However, the Department of Energy (DOE) stated the facilities are the first to be able to start construction in the next year and a practical problem exists. That is that high-grade oil shale is located in one area and the costs of transportation requires the facility to be close to the shale mine.

The following describes the act's provisions by subsection and discusses the actions taken to meet them.

Subsection 305(a)(1)(A): Has the President taken immediate action to achieve production of synthetic fuels to meet national defense needs?

It is questionable whether this requirement was fully implemented. Questions can be raised whether (1) the 13 month time frame for awarding the contract can be considered "immediate action",

and (2) DOD purchase of products not necessarily derived from syncrude can be considered "production of synthetic fuels to meet national defense needs."

While immediate actions were taken to put a process in place which would allow the award of assistance under DPA and we did not find any substantial periods of inactivity, questions nonetheless can be raised whether the contract could have been awarded in a shorter time frame. However, due to time constraints, we were not able to analyze the advantages and disadvantages of alternate approaches which might have reduced the overall time frame of the award. Additional information on this question is presented in enclosure II.

The second question concerning DOD purchase of products not necessarily derived from syncrude was addressed by the DPA Task Force Legal Team in a July 15, 1981, memorandum to the DOE Assistant General Counsel for Procurement and Financial Incentives. The legal team determined that such a practice was permitted by DPA because the act's legislative history indicates that the Congress was basically emphasizing how the product would be used, not where it would come from. In addition, the team st ted that unless steps are taken to segregate the crude in the refining process, it is impossible to determine whether and to what extent, the refined product contains synthetic crude. Nonetheless, the team acknowledged that it may be argued that DPA requires the purchase only of synthetic fuel.

While the contract provides an option for DOD to purchase the syncrude and this option is consistent with a narrow interpretation of DPA, we note that DOD officials intend to purchase products not necessarily derived from the syncrude.

Subsections 305(a)(1)(B)(i)&(ii): Has the President exercised authority, in consultation with the Secretary of Energy, through DOD and any other Federal department or agency designated by the President?

Yes, the President delegated authority to implement DPA through Executive Order 12242 issued on September 30, 1980. The Secretary of Defense was delegated authority to implement subsections 305(f)(1) and (2), including responsibility for determining defense needs. The Secretary of Energy was delegated authority to implement subsections 305(b)(1)(A)(i) and (ii);(c)(1) (B);(c)(3);(d)(2),(3),(5), and (6);(e); and (g)(2)(C), including responsibility for awarding financial assistance based on defense needs.

Subsection 305(a)(1)(B)(iii): Has the President exercised authority consistent with an orderly transition to the separate authorities established pursuant to the United States Synthetic Fuels Corporation Act of 1980?

Yes, although the results are yet to be seen, it appears that actions were taken to achieve an orderly transition. Synthetic Fuels Corporation (SFC) representatives attended the DOE negotiations with Oil Shale. Both DOE and SFC staff members have stated that the terms and conditions of The Oil Shale Corporation contract are consistent with the statutory requirements for the SFC.

Subsections 305(b)(1)(A)(ii) and 301(a)(1): Is the guarantee in connection with a Government procurement contract deemed to be necessary for the expedited production and delivery of materials for national defense?

Although on June 27, 1981, DOD deemed the contract necessary for the expedited production and delivery of synthetic fuels for the national defense, we believe this section may not be fully consistent with DPA. As stated earlier, a question can be raised as to whether DOD purchase of fuels not derived from syncrude would have any effect on the expedited production and delivery of materials for national defense.

Subsections 305(b)(2)(A), 305(d)(4)(B), 308(b)(1)(A), and 308(b)(2)(A): Is the person receiving assistance participating in a synthetic fuel project in the United States, as defined by the act?

Yes, Oil Shale is a partner in the Colony project and it conforms to the definition of a synthetic fuels project. It will transform oil shale on a commercial scale into a high-quality crude oil which can be used as a substitute for petroleum and is to be located in the United States (Garfield County, Colorado).

Subsections 305(b)(3) and 307: If the amount of loan guarantee exceeds the limitations established in section 301--$38 million--has the President submitted a synthetic fuel action to both Houses of the Congress on the same day?

Yes, the President submitted a report on the Oil Shale contract to both Houses of the Congress on August 25, 1981. Either House then has 30 days beginning on September 9, 1981, in which to consider the contract.

Subsection 305(d)(1): Was there a solicitation of sealed competitive bids?

Yes, on October 15, 1980, DOE issued a solicitation for proposals for financial assistance under Title I, Part A of the Energy Security Act (announcement no. DE-PS60-81RA50481) which called for submittal of sealed competitive bids. Ten proposals were submitted. On January 12, 1981, DOE announced that none of the proposals were acceptable for award as submitted. However,

ENCLOSURE I

DOE selected Oil Shale and Union Oil Company for negotiation considering them the best of the ten proposals.

Subsection 305(d)(3): Does the agreement to purchase synthetic fuel provide that the President can refuse delivery of the fuel and pay the contractor for the amount by which the contract price exceeds the market price?

Yes, Article VIII of the Purchase Commitment stipulates the Government's right to refuse delivery of product. Section 4.2 of the Purchase Commitment states that the purchase price will be the average product price paid by DOD on a United States-wide basis for JP-4 or DFM, respectively (i.e., the purchase commitment only provides for purchases at market prices). In addition, an option exists for the Government to refuse the products or buy the syncrude at negotiated prices. This option is also consistent with the requirement.

Subsection 305(d)(6): Did the President take into account the socioeconomic impacts on affected communities?

Yes, Section 5.8.10 of the Commitment to Guarantee Obligations states, in part, that operations are to be conducted so as to minimize adverse socioeconomic impacts. DOE staff stated that they had discussions with State and local officials concerning the Oil Shale project during negotiations. We talked with officials from Garfield County and Colorado State agencies. These officials have reviewed the Oil Shale socioeconomic mitigation program, and are satisfied with the actions that are planned to be taken.

Subsection 305(f)(1): Has the President determined that the synthetic fuel is needed to meet national defense needs and that it is not anticipated that such synthetic fuel will be resold by the Federal Government?

On June 27, 1981, the Secretary of Defense signed the "Defense Department Determination of Need for Syntnetic Fuel." The document certifies that DOD needs the project's synthetic fuel product to meet national defense needs and that DOD does not anticipate that any of the synthetic fuel acquired to meet the national defense will be resold. However, as stated earlier, it is questionable whether this requirement will be fully implemented in view of DOD's intent to purchase fuels not necessarily derived from syncrude.

Subsection 305(g)(1): Does the contract, and any amendment or other modification, specify in dollars the maximum liability of the Federal Government?

 ENCLOSURE I

Yes, Section 1.2.1 of the Commitment to Guarantee Obligations sets the maximum liability of the Federal Government to be $1,232,900,000. This includes $1,112,400,000 for the loan guarantee and up to $120,500,000 to pay termination costs and interest in the event of a default by Oil Shale. There is no provision for Government payment if it exercises its option to refuse delivery of products.

Subsection 305(q)(4): Has the Director, Office of Management and Budget, certified that the necessary appropriations have been made for the purpose of the contract and are available?

Yes, on August 6, 1981, the Director, Office of Management and Budget, certified that the appropriations have been made for the purpose of the contract and that the necessary funds for the guarantee and termination costs are available.

Subsection 305(i): Are all laborers and mechanics employed for the construction, repair, or alteration of the project paid in accordance with the Davis-Bacon Act?

Yes, Section 5.8.8 of the Commitment to Guarantee Obligations commits the project to pay prevailing wages pursuant to the Davis-Bacon Act.

Subsection 305(j)(2): Has it been ensured that the project is not considered to be a Federal project for purposes of the application or assignment of water rights?

Yes, DOE stated that no provision exists in the contract that would allow the project to be considered to be a Federal project for purposes of the application or assignment of water rights.

Subsection 305(k)(1): Does it ensure that the President has not yet determined that SFC is established and fully operational?

Yes, the President has not determined that the SFC is fully operational.

- - - - - - -

In addition, DPA sets forth a declaration of policy in Section 2 as follows:

"In order to insure productive capacity in the event of such an attack on the United States, it is the policy of the Congress to encourage the geographical dispersal of the industrial facilities of the United States in the interest of the national defense, and to discourage the concentration of such productive facilities within

> limited geographical areas which are vulnerable to attack by an enemy of the United States. In the construction of any Government-owned industrial facilities, on the condition of any Government financial assistance for the construction, expansion, or improvement of any industrial facilities, and in the procurement of goods and services, under this or any other act, each department and agency of the Executive Branch shall apply, * * * when practicable and consistent with existing law and the desirability for maintaining a sound economy, the principle of the geographical dispersal of such facilities in the interest of national defense * * *"

The Union Oil Company project and Colony project, the only two projects to be selected by DOE for negotiation, use shale oil in the same geographic area. According to DOE, they are the first synthetic fuels facilities which can be available to start construction within one year in the United States and thus help to achieve early production, another objective of the act. Geographic diversification of the selected projects was among the final selection factors applied by DOE to evaluate the proposals that were submitted. However, DOE states that the geographical dispersement policy is a goal to be sought "when practicable" and is not an absolute requirement for the award of financial assistance under DPA. DOE also notes a practical problem that significant quantities of high-grade shale oil resources are located in a single geographic area and the cost of transportation requires the location of the production facilities to be close to the shale mine.

ENCLOSURE II ENCLOSURE II

DID THE PRESIDENT TAKE

IMMEDIATE ACTION TO

ACHIEVE SYNTHETIC FUEL PRODUCTION?

Section 305(a)(i)(A) of the Defense Production Act of 1950, as amended (DPA), states, "* * * In order to encourage and expedite the development of synthetic fuel for use for national defense purposes, the President, utilizing the provisions of the Act * * *, and any other applicable provision of law, shall take immediate action to achieve production of synthetic fuel to meet national defense needs" (emphasis added). The language of the act is supported by the report of the Committee of the Conference for Title I, Part A of the Energy Security Act:

> "The purpose of Title I is to accelerate the development of a synthetic fuel industry in the United States. To accomplish this objective, this title is divided into two parts. Part A, which amends the Defense Production Act of 1950 (DPA), provides authority for a fast start interim program utilizing existing Federal departments and agencies to expedite the development and production of synthetic fuels to meet national defense needs. The President of the United States is directed to put this program into effect immediately upon enactment. The conferees believe that no time should be lost during the period before the United States Synthetic Fuels Corporation established in Part B becomes fully operational."

More than 13 months passed from the enactment of the Energy Security Act on June 30, 1980, to the signing of the loan guarantee contract by The Oil Shale Corporation (Oil Shale) and the Department of Energy (DOE) on August 6, 1981. The second question the Subcommittee on Economic Stabilization asked is: whether the President fully implemented the statutory requirement to take immediate action, in regard to achieving synthetic fuel production to meet national defense needs. While the record shows that immediate actions were taken after enactment of the DPA amendments to put a process in place for implementing the program, questions can be raised whether the process was as timely as possible. The President initiated action to implement DPA in early July 1980. While we did not find any substantial periods of inactivity, DOE was required to consult with three other Federal agencies and The United States Synthetic Fuels Corporation (SFC) in the award process. According to the head of the DPA Task Force, this contributed to the time required to award the contract. However, due to time constraints, we were not able to analyze the contributions of these agencies to the contract or the advantages and disadvantages of alternative approaches which might have reduced the overall time frame for making the award.

ENCLOSURE II

AGENCY RESPONSIBILITIES

Subsection 305(a)(1)(B) of DPA directs the President to act in consultation with the Secretary of Energy and through the Department of Defense (DOD) and any other Federal department or agency designated by the President. The report of the Committee of the Conference stated, "The Department of Defense, in carrying out the consultation required above, should provide the Secretary of Energy as rapidly as possible with its total requirements for mobility synthetic fuels and other alternative fuels by specification and quantity and the rate at which they are required for use in lieu of conventional fuels." On July 3, 1980, a draft Executive Order was circulated which clarified and divided responsibilities for implementing the fast start interim program between DOE and DOD.

DOE was given lead responsibility for soliciting proposals for financial assistance and for negotiating contracts under the DPA. The Secretary of Defense was delegated responsibility for (1) determining the quantity and quality of synthetic fuels needed to meet national defense needs and (2) ensuring that the synthetic fuels needs do not include fuels which he anticipates will be resold by the Government. In addition, Executive Order 12242 states that the terms and conditions of purchase agreement contracts negotiated under the DPA are subject to the concurrence of the Secretary of Defense.

Subsection 305(a)(1)(B)(iii) requires that the DPA authority be exercised consistent with an orderly transition to the separate authorities of SFC. Fiscal year 1980 Supplemental Appropriations and Rescission Act (P.L. 96-304) provides a transfer mechanism from DOE to SFC upon the President's determination that SFC is established and fully operational and upon approval by a majority of SFC's Board of Directors. To assist the transfer, Executive Order 12242 states that no award under DPA shall be made that would preclude projects from being transferred to SFC. Because of these authorities, SFC staff was invited to participate in the negotiations of the two DPA contracts. As discussed later, at one point in early January 1981, SFC assumed lead responsibility for negotiating the contracts. This authority was returned to DOE in February 1981.

Subsection 305(g)(4) requires the Director of the Office of Management and Budget (OMB) to certify that the necessary appropriations have been made for the purpose of each contract and are available. Executive Order 12242 requires the Secretary of Energy to obtain the concurrence of the Secretary of Treasury with respect to the timing, interest rate, and substantial terms and conditions of a loan guarantee under DPA.

85-595 O—81——4

ENCLOSURE II

Thus, four Federal agencies and SFC were drawn into soliciting, negotiating, and/or approving the Oil Shale contract. Three--DOE, DOD, and SFC--participated in negotiations. In addition, discussions were held with State and local officials of Colorado.

THE AWARD SCHEDULE

In March 1980, the Committee of the Conference had resolved all outstanding differences for Title I, Part A of the Energy Security Act. The administration was aware of this, and some first steps were made to establish the fast start interim program. Before the award process began, DOE and DOD spent several weeks resolving which would have lead responsibility and what role each would play. The draft Executive Order, dated July 3, 1980, defined the responsibilities of each. However, the final order was not issued until September 30, 1980.

Table 1 breaks down the award process by major events. DOE's project selection process took six months once the draft Executive Order was circulated. On August 4, 1980, DOD provided DOE a list of its synthetic fuels requirements. This list was incorporated into the draft solicitation for proposals, which was released on August 25, and the final solicitation, which was released on October 15. The closing date for submission of proposals for financial assistance was November 14, 1980. Ten proposals were submitted. On January 12, 1981, DOE announced that none of the proposals were acceptable for award as submitted. However, DOE selected Oil Shale and Union Oil Company proposals for negotiation and The Tennessee Synfuels Corporation proposal to determine project readiness.

Upon announcing the selections for negotiation, the Secretary of Energy and the SFC Chairman announced that the SFC would have lead responsibility for negotiating the Oil Shale and Union contracts. One consideration for this decision was that SFC could have been declared fully operational in the middle of negotiations; and consequently, the DPA funds would be transferred to SFC, in accordance with P.L. 96-304.

On January 19, 1981, President Reagan was inaugurated. The DPA negotiating team was instructed by the new administration that work could proceed, but that they could not conduct any serious negotiations. The team proceeded with its fact finding for the three projects, which included frequent meetings with the applicants. The DPA team analyzed the expected rate of return for each project in light of economic and project uncertainties, such as varying energy prices, delays, and cost overruns. They also reviewed whether and under what circumstance synthetic crude production could be substituted for or blended with petroleum products. The DPA team examined the financial standing of Oil Shale and its parent, TOSCO Corporation, to determine their ability to finance 25 percent of Oil Shale's share of the Colony project costs ($370 million). According to the head of the DPA negotiating team, the

restriction against conducting negotiations during the first month of the Reagan administration did not result in a significant loss of time because the activities which were performed would have to have been done anyway.

In mid-February the Reagan administration reversed the earlier DOE-SFC agreement for negotiating the contracts by putting DOE in charge. The DPA Task Force was set up within DOE on February 26, 1981, and negotiations with Oil Shale began March 4, 1981. The DPA Task Force insisted on nine fundamental changes to the Oil Shale contract proposal and numerous smaller changes. The major changes were worked out within 3 months. On June 1, the DPA Task Force accepted draft contracts for the guarantee commitment, TOSCO funds agreement, trust indenture, debt servicing agreement, technology agreement, and project monitoring agreement.

The DPA Task Force circulated the draft contracts within DOE and sent copies to DOD, OMB, Treasury, and SFC. They briefed the Under Secretary of Energy on June 19 and the Secretary of Energy on June 30. Other Federal agency officials were also briefed in June. DOD initially concurred with the contract's terms and conditions on June 11, 1981. The Secretary of Defense also provided on June 27, 1981, a determination that the synthetic fuel produced under the DPA financial assistance is needed to meet national defense needs and that DOD does not anticipate that the synthetic fuel will be resold. On July 9, the DPA Task Force submitted its report to the Under Secretary of Energy on the Oil Shale contract. A final wrap-up session to approve all of the contract terms was held on July 16 by the DPA Task Force and Oil Shale.

The Oil Shale contract was ready to be signed at this point. However, two documents were outstanding--a letter from the Secretary of Defense concurring with the terms and conditions of the purchase agreement and a certification from the the Director of OMB that the necessary appropriations have been made for the purpose of the contract and are available. DOD submitted its final concurrence to the contract on July 31, 1981.

The Director of OMB did not meet DOE's requests for certification until the President's Cabinet Council convened on August 5 and President Reagan concurred with the Secretary of Energy's decision to sign the Oil Shale contract. There is no indication in the DPA or in the legislative history that the OMB certification is to be anything more than procedural. The Director of OMB is not asked to review or concur in the terms of the contract. P.L. 96-304, enacted on July 8, 1980, appropriated $3 billion for financial assistance for synthetic fuels projects under DPA. The Union and Oil Shale contracts are the first and only contracts that have been negotiated

ENCLOSURE II

under the DPA authority. The extent of Federal Government assistance under the Union contract is $400 million and under the Oil Shale contract is $1.2 billion. On August 6, the Director of OMB provided his certification, and the Oil Shale contract was signed.

ENCLOSURE II

ENCLOSURE II

Table 1

CHRONOLOGY OF EVENTS LEADING TO
AWARD OF THE OIL SHALE CORPORATION CONTRACT

P.L. 96-294 Enacted	June 30, 1980
Draft Executive Order	July 3, 1980
DOD Provided DOE With Its Synthetic Fuels Needs	August 4, 1980
Draft Solicitation	August 25, 1980
Final Solicitation	October 15, 1980
Submission of Proposals	November 14, 1980
DOE Selected Union Oil and Oil Shale for Negotiation and SFC given lead responsibility	January 12, 1981
DPA Task Force Established to Negotiate Agreements	February 26, 1981
Negotiations began with Oil Shale Corporation	March 4, 1981
DPA Task Force Accepts Draft Agreement for the Documents	June 1, 1981
Circulation of Draft within DOE, DOD, Treasury, OMB, SFC	June, July 1981
Briefings: DOE, Other Federal Agencies, SFC	June 1981
Under Secretary of Energy	June 19, 1981
Secretary of Energy	June 30, 1981
Report to the Under Secretary by DPA Task Force	July 9, 1981
Final Wrap-up of Contract Terms with Oil Shale Corporation	July 16, 1981
Selection for Award	August 5, 1981
Availability of Funds Certified by OMB	August 6, 1981
Contracts signed by The Oil Shale Corporation and DOE	August 6, 1981
Transmission of the Synthetic Fuel Action to the Congress	August 25, 1981

ENCLOSURE III

JAMES J. BLANCHARD, MICH., CHAIRMAN
STANLEY N. LUNDINE, N.Y.
BRUCE F. VENTO, MINN.
DAVID W. EVANS, IND.
NORMAN E. D'AMOURS, N.H.
MARY ROSE OAKAR, OHIO
ROBERT GARCIA, N.Y.
FERNAND J. ST GERMAIN, R.I.
JOSEPH G. MINISH, N.J.
FRANK ANNUNZIO, ILL.
WALTER E. FAUNTROY, D.C.
CHARLES E. SCHUMER, N.Y.
WILLIAM J. COYNE, PA.

U.S. HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON ECONOMIC STABILIZATION
OF THE
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS
NINETY-SEVENTH CONGRESS
2129 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515

ENCLOSURE III

STEWART B. MCKINNEY, CONN.
NORMAN D. SHUMWAY, CALIF.
RON PAUL, TEX.
ED BETHUNE, ARK.
STAN PARRIS, VA.
GEORGE C. WORTLEY, N.Y.
MARGE ROUKEMA, N.J.
JAMES K. COYNE, PA.
DOUGLAS K. BEREUTER, NEBR.

EDWIN W. WEBBER
STAFF DIRECTOR

(202) 225-7148

August 7, 1981

Honorable Milton J. Socolar
Acting Comptroller General
of the United States
General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

Dear Mr. Socolar:

As you know, on August 6, 1981, the Department of Energy signed a loan guarantee agreement with The Oil Shale Co. (TOSCO) covering the development of a large commercial oil shale project in Colorado to produce synthetic fuel for defense purposes.

Under sections 305 and 307 of the Defense Production Act of 1950, as amended, loan guarantees of this magnitude are referred to Congress for a lay-over period of 30 days, during which action may be taken to approve or disapprove the guarantee. If no action is taken, the guarantee goes into effect automatically.

It is our understanding that the TOSCO guarantee is likely to be referred to the House Committee on Banking, Finance and Urban Affairs and, in turn, to the Subcommittee on Economic Stabilization.

To assist us in our oversight function, we would greatly appreciate an expeditious review by the General Accounting Office to determine:

1.) Whether all relevant provisions of the Defense Production Act were adhered to by the various Federal departments and agencies involved.

2.) Whether the congressional mandate in the Act directing the President to take immediate action to achieve production of synthetic fuel to meet national defense needs was fully implemented in terms of this particular loan guarantee.

3.) Whether, in light of the findings above, the General Accounting Office would recommend approval of this loan guarantee.

ENCLOSURE III

ENCLOSURE III

Because of the time constraints in consideration of this matter by the Committee and Subcommittee, it is essential your conclusions be transmitted to us by no later than September 9, 1981.

Thank you for your timely attention to this matter.

Sincerely,

JAMES J. BLANCHARD
Chairman

Mr. MARIENTHAL. I also broke Schmitt's law. That was only 3 minutes. [Laughter.]

Senator SCHMITT. It depends upon how fast you read your statement.

And it is my understanding, although I have not personally read the report yet, that GAO dealt with three questions—was tasked to deal with three questions, and apparently upon the third question, that is whether in light of the findings, we would recommend approval of this loan guarantee, that they are less than explicit on that recommendation.

Do you know whether they recommended one way or the other?

Mr. MARIENTHAL. I believe that is the question that Mr. Mares from the Department of Energy would be the principal authority on.

Mr. MARES. My recollection, Senator, is that the GAO said they didn't have time to go through all of the aspects, and they took no position in that regard.

Senator SCHMITT. That is my understanding also.

COST FOR DEVELOPMENT

Mr. Marienthal, do you know how much on the average it would cost for the development of a conventional petroleum field that would produce 10,000 barrels per day?

Mr. MARIENTHAL. No, sir.

Senator SCHMITT. I believe that you would find it would not take $1,125,000,000. So just from the narrow perspective of the Defense Department, you are getting a bad deal. The same amount of money allocated to the development of production from a conventional field or infield drilling in an existing field, you can get 10,000 barrels a day, guaranteed, for a lot less money.

Mr. MARIENTHAL. If I might, sir, I believe the testimony this morning reflects the loan guarantee aspects of this, as opposed to an outlay.

EFFECT OF A LOAN GUARANTEE

Senator SCHMITT. I'm just saying that the effect on the credit markets of a loan guarantee is identical to that of an increase in the national deficit. It is identical. It is pressure on the money markets, pressure on interest rates, created by the Federal Government, and all I'm saying is for the same amount of pressure for that money, you'd get a lot more than 10,000 barrels per day in some other type of more conventional venture. And I just want—that doesn't mean that when you broaden your view, that the loan guarantee isn't justified, but it isn't justified by the Federal Government getting a guarantee of 10,000 barrels a day, not economically justified.

Well, we will get into some more of these points in a moment, Mr. Marienthal.

Now if we could have Thomas DiLorenzo, assistant professor of Economics, George Mason University.

STATEMENT OF THOMAS DiLORENZO, DEPARTMENT OF ECONOMICS, GEORGE MASON UNIVERSITY

Mr. DiLORENZO. I'm here to make a statement on fair loan guarantees, and I'll try to pay attention to Schmitt's law and read my statement rather than summarize it.

A guaranteed loan is a loan on which the Federal Government has removed or reduced a lender's risk by pledging to repay principal and interest in case of default by the borrower. There are hundreds of loan guarantee programs administered by nearly every on-and-off budget Federal agency. Loan guarantees have expanded rapidly throughout the post-World War II period, in which guaranteed lending was approximately twice that of direct Federal lending.

Guaranteed loans outstanding have risen 118 percent during the past decade, having increased from approximately $115 billion in 1971 to over $250 billion in 1980. This compares to a 77-percent increase during the previous decade. Currently, Federal loan guarantees constitute more than twice the amount of direct Federal lending, and over $60 billion in new loans are expected to be granted in 1981.

POPULARITY OF LOAN GUARANTEES

One reason why loan guarantees are so popular is that they enable the Federal Government to bestow benefits on various special interests without having to simultaneously increase taxes. Thus it appears to many that there is such a thing as a free lunch after all. But there is no free lunch, and loan guarantees impose enormous costs, explicit and implicit, on business firms, government, and taxpayers.

The most visible cost of Federal loan guarantees is the cost of paying the principal and interest on defaulted loans. Some loan guarantee programs have experienced few defaults, while others, such as the student loan program and the HUD new communities program, have been disasters. But overall, repayment of defaulted loans represents a relatively minor share of the social cost of loan guarantees. Among the major costs born by consumers is the distortion of the market process. An unregulated market allocates resources to those uses most highly valued by consumers, for it is in the interest of profit-maximizing producers to do so.

The credit markets serve the role of evaluating the riskiness of alternative projects, and those with higher probabilities of failure are charged with higher borrowing costs. In this way, the credit markets provide consumers and producers with valuable information regarding the expected beenfits and costs of alternative uses of resources. When a private project is not undertaken because of high risk and borrowing costs, it is because consumers and producers value alternative safer uses of resources more highly.

Federal loan guarantees, by eliminating private risks of default, make it impossible for consumers and producers to make accurate benefit-cost calculations and resources are put to lower-valued, not higher-valued uses. Loan guarantees are a way of ignoring the preferences of the consumer in favor of politically favored groups—usually large corporations, labor unions, environmentalists, and other effective lobbying groups.

A second type of market distortion occurs when loan guarantees are used, as they often are, to subsidize the borrowing costs of failing or inefficient businesses. In this case consumers are induced to pay for goods and services they would not otherwise prefer, and inefficient producers make use of resources which would be put to more highly valued use in other more efficient industries. Both consumer sovereignty and the economy's productive capacity are compromised.

A third detrimental effect of loan guarantees is that they cause interest rates to be higher than they otherwise would and therefore crowd out private investment. With the massive increase in guaranteed borrowing which had occurred in recent years, there is a relative reduction in the supply of funds available for nonguaranteed borrowing. The competition for the reduced supply of funds bids up the interest rate charged for these funds.

At a Congressional Budget Office conference on the economics of Federal credit activity in April 1980, economist Herbert M. Kaufman of Arizona State University estimated that for every $1 billion in loan guarantees between $740 million and $1.32 billion in private investment is crowded out. Although these numbers are estimates, they indicate that loan guarantees are sure to have a very significant negative impact on private investment.

Further, the crowding out of private investment reduces productivity, hinders economic growth and fuels inflation. Higher interest rates caused by loan guarantees also increase the cost of borrowing to Federal, State, and local governments, a burden which is borne by taxpayers.

BACKDOOR FINANCING

Another troublesome point regarding Federal loan guarantees is that they constitute the "backdoor financing" of additional Government control and regulation of the private sector. Federal credit assistance is often accompanied by various forms of influence over the recipients of the subsidies. For example, the Federal Housing Administration which administers the largest loan guarantee program, attempts to implement various social policies by vetoing a loan application if a builder does not comply with FHA's requirements regarding marketing to minority groups, environmental impact statements, architectural review, and underwriting.

Because of the division of responsibility for all of these objectives, considerable confusion and delay arises, which increases the cost of housing projects. Furthermore, the cost of implementing these social policies is likely to be quite high compared to more direct alternatives. Once an industry is dependent on financial assistance from the Government, the dependence is often used as a lever to impose additional controls which may be totally unrelated to the Government's investment of contingent liability. The current efforts of the Reagan administration and the Congress to deregulate the private sector are sure to be confounded somewhat by the regulatory requirements which accompany the ever-increasing volume of loan guarantees.

In summary, loan guarantees are a form of sweetheart legislation which benefits special interests, particularly large corporations, unions, and Government bureaucrats, at the expense of the

general public. They distort the market process which normally allocate resources to their most highly valued uses, reduce the economy's productive capacity, crowd out private investment and production, intensify inflation, and permit the Federal Government to exercise greater regulatory control over the private sector. Loan guarantees are inefficient and inequitable, and there is no reason why the Nation's largest corporations should be receiving such subsidies. They've proven they can do just fine without them. Thank you.

[Prepared statement follows:]

October 7, 1981

STATEMENT ON FEDERAL LOAN GUARANTEES

By Thomas DiLorenzo, Department of Economics, George Mason University

A guaranteed loan is a loan on which the federal government has removed or reduced a lender's risk by pledging to repay principal and interest in case of default by the borrower. There are hundreds of loan guarantee programs administered by nearly every on-and-off budget federal agency. Loan guarantees have expanded rapidly throughout the post-World War II period, in which guaranteed lending was approximately twice that of direct federal lending. Guaranteed loans outstanding have risen 118-percent during the past decade, having increased from approximately $115 billion in 1971 to over $250 billion in 1980. This compares to a 77-percent increase during the previous decade. Currently, federal loan guarantees constitute more than twice the amount of direct federal lending, and over $60 billion in new loans are expected to be granted in 1981.

One reason why loan guarantees are so popular is that they enable the federal government to bestow benefits on various special interests without having to simultaneously increase taxes. Thus it appears to many that there is such a thing as a free lunch after all. But there is no free lunch, and loan guarantees impose enormous costs, explicit and implicit, on business firms, government, and taxpayers.

The most visible cost of federal loan guarantees is the cost of paying the principal and interest on defaulted loans. Some loan guarantee programs have experienced few defaults, while others, such as the student loan program and the HUD New Communities program, have been disasters. But overall, repayment of defaulted loans represents a relatively minor share of the social cost of loan guarantees. Among the major costs borne by consumers is the distortion of the market process. An unregulated market allocates resources to those uses most highly valued by consumers, for it is in the interest of profit-maximizing producers to do so. The credit markets serve the role of evaluating the riskiness of alternative projects, and those with higher probabilities of failure are charged

with higher borrowing costs. In this way, the credit markets provide consumers and producers with valuable information regarding the expected benefits and costs of alternative uses of resources. When a private project is not undertaken because of high risk and borrowing costs, it is because consumers and producers value alternative "safer" uses of resources more highly. Federal loan guarantees, by eliminating private risks of default, make it impossible for consumers and producers to make accurate benefit-cost calculations and resources are put to lower-valued, not higher-valued uses. Loan guarantees are a way of ignoring the preferences of the consumer in favor of politically favored groups — usually large corporations, labor unions, environmentalists, and other effective lobbying groups.

A second type of market distortion occurs when loan guarantees are used, as they often are, to subsidize the borrowing costs of failing or inefficient businesses. In this case consumers are induced to pay for goods and services they would not otherwise prefer, and inefficient producers make use of resources which would be put to more highly valued use in other (more efficient) industries. Both consumer sovereignty and the economy's productive capacity are compromised.

A third detrimental effect of loan guarantees is that they cause interest rates to be higher than they otherwise would and therefore "crowd out" private investment. With the massive increase in guaranteed borrowing which had occurred in recent years, there is a relative reduction in the supply of funds available for nonguaranteed borrowing. The competition for the reduced supply of funds bids up the interest rate charged for these funds. At a Congressional Budget Office conference on the economics of federal credit activity in April, 1980, economist Herbert M. Kaufman of Arizona State University estimated that for every $1 billion in loan guarantees between $740 million and $1.32 billion in private investment is crowded out. Although these numbers are estimates, they indicate that loan guarantees are sure to have a very significant (negative) impact on private investment. Further, the crowding out of private investment reduces productivity, hinders economic growth and fuels inflation. Higher interest rates caused by loan guarantees also increase the cost of borrowing to federal, state and local governments, a burden which is borne by the taxpayers.

Another troublesome point regarding federal loan guarantees is that they constitute the "backdoor financing" of additional government control and regulation of the private sector. Federal credit assistance is often accompanied by various forms of influence over the recipients of the subsidies. For example, the Federal Housing Administration (FHA), which administers the largest loan guarantee program, attempts to implement various social policies by vetoing a loan application if a builder does not comply with FHA's requirements regarding marketing to minority groups, environmental impact statements, architectural review, and underwriting. Because of the division of responsibility for all of these objectives, considerable confusion and delay arises, which increases the cost of housing projects. Furthermore, the cost of implementing these social policies is likely to be quite high compared to more direct alternatives. Once an industry is dependent on financial assistance from the government, the dependence is often used as a lever to impose additional controls which maybe totally unrelated to the government's investment or contingent liability. The current efforts of the Reagan administration and the Congress to deregulate the private sector are sure to be confounded somewhat by the regulatory requirements which accompany the ever-increasing volume of loan guarantees.

In summary, loan guarantees are a form of sweetheart legislation which benefits special interests, particularly large corporations, unions, and government bureaucrats, at the expense of the general public. They distort the market process which normally allocates resources to their most highly valued uses, reduce the economy's productive capacity, crowd out private investment and production, intensify inflation, and permit the federal government to exercise greater regulatory control over the private sector. Loan guarantees are inefficient and inequitable, and there is no reason why the nation's largest corporations should be receiving such subsidies. They've proven they can do just fine without them.

Senator SCHMITT. Thank you, sir.

I would introduce in the record, a paper by Ronald Utt associate chief economist, U.S. Chamber of Commerce, that is more of a statistical analysis of the recent history of loan guarantees, so that at least that information will be available.

[The information follows:]

Article on Federal Lending Programs
by
Ronald D. Utt
Associate Chief Economist
U.S. Chamber of Commerce

The persistence of high interest rates and the recent escalation of business loan demands have so unsettled financial markets that serious questions are now being raised about the internal consistency of the Reagan economic program. Together with the recent independent estimates that budget deficits for the next three fiscal years will greatly exceed the President's projection, these financial market trends have forced the Administration to reconsider its federal spending targets and to seek further cuts in outlays.

As expressed by independent analysts and the financial press, interest rate concerns are now directly related to the prospect of higher deficits and the fear of excessive government borrowing demands. So direct has this link become that specific, proposed cuts or new deficit projections lead to daily price adjustments in bond markets as traders react to each billion dollar change in the deficit outlook.

While we can certainly appreciate the concern, and admire the precision with which financial markets alter their expectation of future interest rates with each new estimate of the deficit, one can't help but wonder how serious this exercise in deficit counting should be taken. The deficit does, of course, interfere with financial markets, but it is only one aspect of the full measure of federal credit preemption because it does not reflect the vast array of federal loan and loan guarantee programs whose activities never appear in the budget. Indeed, last fiscal year, these programs preempted an even greater share of domestic credit resources than did the deficit.

Defined as direct loans and loan guarantees from federal agencies and federally-sponsored entities, these lending programs have exhibited all of the growth and control problems usually attributed to federal spending. Over the last four years, these loans and loan guarantees have grown at a much faster rate than has the more widely considered measure of budget outlays. From 1976 to 1980, outlays

rose 58% compared to 80% for outstanding federal loans and loan guarantees.

The neglect of this lending activity is rather surprising inasmuch as these programs have essentially the same effect on our economy and its financial markets as does the more visible deficit. Both lay claim to scarce domestic resources and reallocate them to a vast array of beneficiaries. Moreover, these programs are not negligible in size: During FY 1980, the federal government and its sponsored enterprises made $148 billion in loans to various private and quasi-private entities, and guaranteed another $69.8 billion in loans, for a total of $217.8 billion in federal credit market intervention. After netting out repayments and double counting, net new lending and guarantee support reached $80.8 billion in 1980, an amount one-third greater than the $60 billion budget deficit for that year.

As a result of this rapid growth, federal lending support in 1980 accounted for 23.2% of total funds advanced in U.S. credit markets, up from 17.8% in 1979 and 11.9% in 1977. When the borrowing needed to fund the deficit is added to this, total government credit demands amounted to 35.7% of all funds raised in U.S. credit markets during fiscal 1980. In effect, recent government credit market claims are proportionately greater than the comparable federal spending claims on the GNP, with or without the inclusion of the deficit.

In large part, the size of the lending activity and the rapid growth of the programs are attributable to the special attractiveness of these programs to the eligible borrowers and the government officials that create, enact and administer them. The borrowers like the programs because they offer loans at interest rates that are often substantially below market rates, with rates of 2%, 5% or 7% not uncommon. At a time when most borrowers were paying a 20% prime and a 15% mortgage rate, some federal loans had rates as low as 2.3%. Rural home mortgages were available last year at rates that averaged 3.3%, agriculture credit insurance loans went for 8% and insured student loans were available at 7%, to name just a few. The Office of Management and Budget estimates that the present value of the interest rate subsidies available on federal loans made during 1980 amounted to $18.8 billion.

85-595 O—81——5

Public officials like the programs because they offer a way of assisting constituent groups without adding to budget outlays and the reported deficit. Moreover, the funding of these programs does not necessarily require any increase in tax revenues. Of the $80.8 billion of net new loan support provided in 1980, only $9.5 billion appeared on the budget. The remainder stayed off budget, either through a variety of creative accounting techniques or because the program's authorizing legislation specifically stated that the program will not be included in the budget. The Federal Financing Bank (FFB), a major source of funding for many of the loan programs, is off budget by statute. By the end of this fiscal year, it is estimated that the FFB's loan portfolio will total $85 billion.

The practice of giving these loan programs an off budget status has contributed to their rapid growth by removing them from the close scrutiny of the budget process and from the view of a public that has become increasingly concerned about the deficit as reported by present federal accounting procedures.

The growth of these programs and the apparent lack of a mechanism or the will to control them is particularly alarming in light of this has country's widely-acknowledged capital formation problem and the effect this had on our productivity, standard of living and international competitiveness. Indeed, so great is this concern that both Republicans and Democrats have been agressively competing with each other in promoting tax cut packages that are specifically designed to encourage more savings and business investment. Given this concern, it is unfortunate that the continued neglect by many of these same public officials has allowed the federal lending programs to grow to the point where they now pose a threat to capital formation.

Since private business capital formation depends heavily upon the cost and availability of credit, public policies that raise costs and/or limit supply will diminish the amount of private capital formation that is undertaken. These credit programs, by preempting a growing portion of the credit pool, reduce the amount of funds available to the private business sector as well as to the consumer who must compete with the government for credit to purchase a home or auto.

Further, the interest rate subsidies that usually come with these federal loans contribute to an inefficient allocation of credit within our economy. At a time when high interest rates force businesses to limit their investment and to direct their funds only to those projects that offer the promise of very high yields, federally-assisted borrowers, paying subsidized interest rates, are able to invest in projects whose return may be only a third or a fourth of that required by private business. As a consequence, the productivity of our capital stock is lowered and economic growth and output suffer accordingly.

In addition to their adverse impact upon the Nation's efficient use of its scarce capital resources, the operation of these lending programs has often been wholly out of phase with major macroeconomic policy initiatives. During 1980, efforts to reduce the rate of inflation were the primary focus of government policies, and heavy reliance was placed upon the Federal Reserve to meet that objective by slowing the growth of overall credit extensions. As the record clearly shows, the Fed was successful in achieving that objective: the amount of total credit advanced in the U.S. economy actually fell by 16% from FY 1979 to FY 1980. The present depressed state of our housing and auto industries and the decline in business fixed investment attest to the success of this policy.

But while the private sector was forced to make do with less, the federal lending programs and the recipients of their many loans and loan guarantees not only remained unscathed but managed to increase their share of the credit pie by a substantial amount. In fact, the net volume of credit advanced under federal auspices actually increased over the period. Thus, while one segment of government was taking harsh measures to reduce inflation, the actions of other government agencies offset these efforts. As a result, the unassisted sector bore a disproportionate burden of monetary restraint. In 1980, when a 20% prime rate and 16% consumer loan rate contributed to the failure of approximately 1,600 automobile dealerships, the Rural Electrification Administration began a new program to provide 35 year loans at a 5% interest rate to finance rural cable television systems.

The irony of our inability to limit the growth of these loans is that many of the programs are not related to meeting what

could reasonably be considered pressing national objectives or individual needs. Unlike the recent exercise in budget cutting that focused on programs oriented toward lower or moderate income groups, many of the federal lending programs are directed to individuals and enterprises that are not economically disadvantaged and who have access to private sources of credit. Indeed, the need to demonstrate an ability to repay the loan precludes the poor and disadvantaged from utilizing these programs.

In large part, this difference in the income characteristics of the recipients of the spending and lending programs may stem from the fact that many of today's federal credit programs are a legacy of the collapse of the financial system during the Great Depression. Although the collapse was pervasive, agriculture and housing-oriented financial institutions bore the brunt of it, necessitating active intervention on the part of the federal government to restore liquidity and solvency to these sectors. But as is often the case, the end of the depression did not mark an end to these programs. Instead, they continued to grow and now account for a major portion of the volume of federal lending assistance. In 1980, 40% of the direct loans and 68% of the loan guarantees were for either housing or agriculture purposes. If the "independent", government-sponsored enterprises such as the Federal Home Loan Bank System and the Farm Credit System were included in the totals, the proportion would be much higher.

This continued adherence to historical patterns of federal credit assistance has led to the existence of a cumbersome collection of lending agencies and an array of loan programs that are often inequitable and capricious in their allocation of benefits among the populace. In 1980, for example, the Farmers Home Administration provided $6.7 billion in mortgage credit at an average rate of 3.3% to assist eligible rural residents in purchasing a home. No similar program exists for urban or suburban residents, regardless of income or need.

Loans in support of the Tennessee Valley Authority (TVA) are another example of a specific regional credit subsidy. A depression era enterprise whose purpose it was to provide electricity to a formerly underdeveloped region of the country, the TVA and its

affiliates continue to be the recipients of substantial federal credit support -- $3.4 billion of loans in 1981 at essentially the Treasury's own borrowing rate -- long after the region has been extensively developed in terms of a modern infrastructure. Thus, when other public utilities are paying rates of nearly 16% on their long-term bonds, affiliates of the TVA are receiving federal loans at rates about two percentage points below this.

Partly as a result of past and present credit subsidies, the cost of electricity in the areas served by the TVA are lower then that in areas served by private companies. In 1979, for example, residential electric rates in Tennessee, where 63% of the power is TVA-supplied, were 38% below the national average and 54% and 47% below the rates in such frost belt states as New York and Massachusetts, respectively. Similar, though less extreme, bargains exist for commercial users.

Inasmuch as the vast majority of the recipients of these federal loans and loan guarantees are not disadvantaged (in fact, very few of the programs entail any sort of means test), reductions in growth or cutbacks in selected programs would not adversely affect the well-being of the beneficiaries of the loan. The only loss to these groups would be the generous but unnecessary interest rate subsidies that are now available through these programs. The student loan program, as formerly operated, is an extreme case in point. It illustrates how an unnecessarily generous loan program with only limited eligibility restrictions can lead to excessive program use and substantial subsidies for well-to-do households.

With such loans available at 7% interest rates to students and their parents, regardless of financial need, they became immensely popular as the increase in market interest rates opened up highly profitable reinvestment opportunities. As the spread between interest rates widened, new student loans rose from $2.7 billion in 1979 to an estimated $7.2 billion in 1981, reflecting what must have been a widespread recognition of the investment arbitrage opportunities available through the program. How extensive were the opportunities? Consider the following hypothetical example. Prior to the interest rate and eligibility reforms that have just been adopted, a family capable of funding its own higher education expenses faced the

following choice: Either they could avail themselves of the 7% federal loans to pay the educational expenses, or they could dip into their own savings.

If they choose the latter, they would forgo the opportunity to earn a rate of 14% if the funds were kept in long-term bonds. But if they choose the former and borrow through the student loan program in order to keep their own funds invested in these high yield securities, it can be shown that when the student graduates four years later, the interest earnings alone on the accumulated bond portfolio would be more than sufficient to fully amortize the student loan over a period of ten years and leave the households own funds completely intact.

Given such an investment opportunity, it is not surprising that the student loan program was one of the fastest growing programs from 1979 to 1981. With the interest rate spread that existed during most of 1980, this program could have provided a free college education to the students of upper income families had these interest rates persisted during the matriculation period.

While selected cutbacks in the federal credit programs would lead to a loss of subsidies to certain groups of beneficiaries, society and the economy would gain. Credit now forcibly allocated to these privileged areas would now be free to flow to sectors of the economy where it had its most productive use based on relative interest rates. By reallocating credit from less productive uses to more productive ones, the productivity of U.S. capital stock would rise and this, of course, would lead to an increase in output and incomes. Moreover, the reduction in federal participation in U.S. credit markets will contribute to a decline in interest rates as competition for scarce credit resources is reduced. In an age of scarcity, capital is a precious commodity. To continue to squander it on marginal activities leaves us all that much poorer.

In recent years, there has evolved in public policy circles an increased awareness of the problems created by the rapid growth in these programs. This recognition of the problem has led to the development of a number of proposals designed to exert some sort of control over federal lending. Former President Carter's 1980 budget expressed concern over this growth and announced the implementation of

a control system based on annual limitations on gross lending activities. In his 1981 budget, a credit budget was introduced and loan and loan guarantee targets were set for the next fiscal year. In order to offset the excessive growth in the past, the President's budget for that year proposed that direct loan obligations should increase by only 1.7% and that growth in loan guarantees should be held to 8.3%. But by the time the President's 1982 budget was published, it was apparent that the new control system was slipping badly and that 1981 federal credit growth would greatly exceed the targeted rates. The 1.7% growth rate for direct loans had now reached 21% while guaranteed loans, targeted to grow at 8.3%, were now estimated to rise by 31%.

Similar concerns arose in Congress and more effective remedies have been proposed. Recognizing that the ubiquitous budgetary status of many of these programs was partly to blame for their apparent uncontrollability, Congressmen Mineta and Bethune have introduced legislation (H.R. 2372) that would have the effect of formally including all federal credit activities, regardless of current budget status, in the congressional budget process. Under their proposal, Congress would create a credit budget that would establish formal limits on total federal lending support for each fiscal year. In effect, Congress would follow the same budget process for loans and guarantees as is currently mandated for revenues and spending. With the total established at the outset, Congress would have to allocate this fixed amount among competing federal programs according to a clearer sense of national priorities. Senator Percy has introduced a similar bill in the Senate.

The Reagan Administration, which has endorsed these bills, is not waiting around for them to pass before tackling the problem of uncontrollable federal lending growth. In his March, 1981 budget proposals, the President proposed substantial reductions in loan authorizations for many of the programs, as well as numerous changes in borrower eligibility and interest rate subsidies. With a few exceptions, most of the recommendations were adopted by Congress.

While a committed President and Congress can work together to effectively limit federal lending growth during a given budget year, it is imperative that a more permanent and comprehensive process

be adopted to ensure that these programs come under close scrutiny every year and that firm limits, consistent with macroeconomic stabilization objectives and long-term economic growth goals, are set on overall lending growth. The Mineta-Bethune bill would achieve this in a systematic way.

As trends over the past several years demonstrate, informal targets and good intentions are not always sufficient to restrain these programs in the face of substantial demand for subsidized loans. A more formal and binding process is required if we are to restore a better balance between private and public credit needs.

Senator SCHMITT. I might point out that in 1980 there was $80.8 billion of new loan support, according to Mr. Utt, and only $9.5 billion appeared on the budget. And the paper does have some of that kind of information.

Dr. DiLorenzo, can you imagine any circumstances related to natural resource production where loan guarantee authority such as that under DPA might be appropriate and related to national security?

Mr. DILORENZO. I'm a bit of a cynic, in that I think that whenever all else fails in obtaining a subsidy from the Government, they claim that it's in the national defense interest to do whatever it is.

Senator SCHMITT. Well, can you imagine, say, any resource that we import almost entirely that is essential to our national security or to our national economy, maybe, agriculture, that under proper circumstances there might be a loan guarantee purpose in it?

Mr. DILORENZO. I can think of several resources such as chromium. We import about 90 percent of that from South Africa, because there is virtually no chromium to speak of in this country, according to what I've read, but I don't believe that a loan guarantee is necessary. What happens with a loan guarantee is that in the case of something like oil shale, it is going to be commercially viable, meaning possible without a subsidy, as long as the price of conventional oil continues to rise. It is not a matter of whether it is or isn't viable. It is a matter of when it is viable.

Senator SCHMITT. But in those situations where there is no obvious domestic production that is competitive within the world marketplace, but it is nevertheless necessary to maintain our national security and have that resource, can you envision circumstances where loan guarantees might be appropriate?

Mr. DILORENZO. I could not, because I'm not a national defense expert. I would have to weigh the risks regarding national defense risks and alternate energy risks, so I could not make a statement on that.

Senator SCHMITT. Our next witness is Robert Roach.

STATEMENT OF ROBERT ROACH, WASHINGTON REPRESENTATIVE, ENVIRONMENTAL POLICY CENTER; ACCOMPANIED BY KEVIN MARKEY, COLORADO REPRESENTATIVE, FRIENDS OF THE EARTH

Mr. ROACH. Thank you, Mr. Chairman. This testimony is going to be delivered on behalf of four groups: the Colorado Open Space Council; Environmental Policy Center; Friends of the Earth; and the Natural Resources Defense Council. I would like to introduce Mr. Kevin Markey of Friends of the Earth, on my left. We jointly prepared this testimony and we will split up the presentation.

Senator SCHMITT. Now, do you have prepared testimony?

Mr. ROACH. Yes, we have submitted it.

Senator SCHMITT. Well, I hope you will summarize and the entire statement will be included in the record. I have your House testimony. Is it the same testimony?

Mr. ROACH. It is essentially the same. I'm sorry, I didn't bring new testimony today.

Senator SCHMITT. Please go ahead.

Mr. ROACH. Thank you.

The Energy Security Act authorizes the distribution of massive Federal subsidies for the development of a commercial synthetic fuels industry. We believe this is an inefficient allocation of scarce capital that will artificially accelerate the development of an immature industry and will exacerbate environmental and socioeconomic problems. Because of these consequences, any subsidy agreements completed under this act should include adequate financial, environmental and socioeconomic protection.

Tosco's share of the Colony shale oil project is one of the first three synthetic fuel ventures subsidized through the $17.5 billion energy security reserve. It is the only one of the three over which Congress has approval authority. The conditions of the Tosco loan guarantee and the negotiating process through which it was developed could establish a precedent for future synthetic fuel subsidies and thus have a significant impact on the disposal of billions of Federal dollars and the development of a synthetic fuels industry.

For these reasons, we believe it is essential that Congress carefully scrutinize all of the conditions of the contract and the negotiations which proceeded it to insure that the requirements of the Energy Security Act have been met and that the contract has been designed to protect the Government and the citizens of impacted regions. To date this has not been done with the Tosco loan guarantee, and without such a careful assessment, Congress will not be able to make a sound judgment of the substantive aspects of the contract or the quality of the negotiating process conducted by DOE.

This is very unfortunate, because the loan guarantee does not adequately protect the taxpayer's investment nor does it insure that appropriate environmental safeguards are incorporated into this project.

DOE'S RESPONSIBILITY

The issue before this committee is not whether to proceed with the Colony project. Rather, it is the need for and the conditions of the Tosco loan guarantee. In my portion of the testimony I will briefly focus on DOE's first responsibility to minimize the risk of government, and Mr. Markey will then focus on the second important duty and that is protection of the citizens.

I would like to reemphasize that the Energy Security Act clearly denotes that the objective of Federal financial assistan for the protection of synthetic fuels is essentially fourfold: to encourage the flow of capital; to encourage private investment; to foster competition; and to encourage and supplement, and not to compete with or supplant private capital investment. In achieving these objectives it requires the Government employ incentives and subsidies wisely and efficiently. This means that they must accurately assess the needs of the projects requesting assistance.

This was not done in the case of the Tosco loan guarantee. Insufficient attention was given by DOE to the question of whether the Colony project really needed Federal subsidization, despite compelling indications that it could continue without such assistance. This only makes it more difficult to achieve the goals of the act. The Government doesn't encourage additional production or private investment by assisting projects which could and would go

forward on their own. In fact, it actually hinders new production by denying scarce capital to those projects which really need it. Nor does this type of approach foster competition.

In the case of the Colony project, Tosco isn't in competition with Exxon. It is in partnership with it. The line must be drawn. Synthetic fuel subsidies must be kept from being used as pyramid schemes in which a company with very little resources tries to build itself up by using Federal synthetic fuel dollars. Awarding subsidies to such projects only hinders DOE's ability to achieve the goals set forth in the Energy Security Act.

Now, a central issue in the Tosco loan guarantee is whether it is really needed to assure the completion of the project. Evidence indicates that DOE did not really address this issue. Government negotiators focused solely on Tosco's request and failed to assess Exxon's capability and commitments to continue the project, should Tosco be denied the loan guarantee. This is despite the fact that Exxon controls 60 percent of the project.

I would like to submit for the record an article which appeared in the Rocky Mountain News in August of this year, which reported that neither the DOE negotiators nor the key aides to the Secretary of Energy ever approached Exxon on this subject. I think it is important to realize Exxon's participation is not just a question of commitment. Certainly no one questions Tosco's commitment to this project. The key element is capability, and certainly it is very possible to make independent assessments of Exxon's assets and their borrowing ability to determine whether or not it has the capability to continue this project; and this has not been done.

[Copy of article referred to follows:]

[From the Rocky Mountain News, Aug. 7, 1981]

ANY TAKEOVER OF TOSCO COULD CANCEL SUBSIDY

(By Al Gordon)

Washington.—If Denver real estate developer Kenneth Good gains control of the Tosco Corp., the Department of Energy will be able to cancel its $1.1 billion loan guarantee to the oil shale concern.

But Larry Oliver, DOE deputy assistant general counsel who was responsible for writing the contract, said Thursday the provision wasn't aimed at Good and is standard department practice.

The Secretary of energy has unilateral authority to cancel the subsidy after any takeover to Tosco, he said. The intent is to make sure that the loan guarantees that were extended to financially weak companies aren't absorbed—along with the smaller company—by big firms that don't need the federal aid Oliver said.

DOE officials responsible for the Tosco deal also admitted that the department never asked Exxon Inc., Tosco's partner in the Colony oil shale project on the Western Slope, if it would build Colony alone should Tosco fail to receive the federal guarantees.

Exxon owns 60 percent of Colony, Tosco 40 percent. Exxon will be the operating partner of the $3.4 billion facility in Garfield County near Parachute. The project is designed to produce 48,000 barrels a day of synthetic crude from shale and is to begin operation in 1985.

Oliver said that the Colony subsidies also would be canceled if Exxon buys out Tosco's interest in the project. In addition, contracts for the project give Tosco the option of building a smaller project if Exxon drops out.

Ralph Blackwell, head of the DOE team that negotiated with Tosco, said "there's been speculation in every office and bar in this town for nine months" that Exxon would build Colony by itself. But "there's no evidence" of that, he said.

However, Blackwell said neither he nor his team asked Exxon directly. That would have been a responsibility of higher officials in the department, he said.

Spokesmen for Energy Secretary James Edwards said the secretary and his key aides hadn't asked Exxon either.

DOE officials said the object of the Tosco guarantee was to enable a relatively small company to participate in synfuels development along with such giants as Exxon.

Good wasn't available for comment Thursday on the anti-takeover provisions of the agreement.

Tosco has filed suit in federal court in Los Angeles trying to block Good's takeover attempt. The suit charges that Paula Herzmark, director of the Colorado Department of Local Affairs, gave Good, her boyfriend, access to confidential details of Tosco's loan guarantee application. Doe submitted a copy of the application to Gov. Richard D. Lamm's administration for its review.

Herzmark and Good deny the charges.

DOE released details Thursday of the Tosco deal and of a $2 billion loan guarantee to ANR Inc. for the Great Plains coal gasification plan in North Dakota. The two pacts were signed Thursday morning.

Tosco's agreement must be submitted to Congress, where either House can veto it. If Congress takes no action after 30 legislative days, the agreement would go into effect. That could mean the Tosco deal will be complete in October.

Other key elements of the Tosco deal:

The $1.1 billion represents 75 percent of Tosco's equity in the project. The firm will raise the rest from its own revenues.

Total federal liability if the project fails is $1.233 billion because of interest charges the government might be forced to absorb.

Tosco has, in essence, put up its holdings in Colony as collateral for the project. The government gets ownership if his company goes under. Tosco also has agreed to license its processes to other firms.

The Department of Defense has agreed to purchase up to 10,000 barrels a day of jet and diesel from Colony at market prices in a 10-year period, beginning in 1985.

Mr. ROACH. We seriously question the advisability of analyzing projects in parts. A failure to consider the resources and intentions of other partners totally distorts the true assessment of project feasibility, its economic conditions, and the true need for federal financial assistance.

Now, although DOE officials in previous appearances to other committees on this loan guarantee have testified that their analysis of Tosco's situation supports the need for some form of financial assistance, the negotiators never assessed how much Tosco itself actually required. No independent determination was actually made of how much of its own capital Tosco could reasonably contribute, and whether it was feasible for the company to obtain the remainder of its capital needs from other private sources instead of the Federal Government.

The only analysis of need was presented by the Tosco Corp. itself in its proposals to the DOE, and the only confirmation of Tosco's analysis was provided by Tosco's investment banker. Now casting further doubt on the necessity of this guarantee is the fact that Tosco plans extensive activities and investments in other oil shale project at the same time that it will be receiving Federal loan guarantees. Tosco has indicated that between 1981–1986 it plans to make $138 million in capital expenditures on other oil shale projects. This amount represents a little over 37 percent of Tosco's total commitment to the Colony project for the years 1981 through 1987.

Furthermore, during the same years, Tosco plans to expend $713 million on capital expenditures for refineries. Now, measured in equivalent dollars, this represents an expenditure of $85 million a year for the next six years, as compared to outlays of $53 million a year during the previous 11 years.

DOE's analysis fails to assess whether such large outlays for these activities are appropriate, and in light of present and projected refinery capacity surplus, it is likely that Tosco can make much greater equity contributions to the project than currently required under the terms of the agreement.

PROTECT PUBLIC INVESTMENT

One other aspect I would like to touch upon is that there is also a commitment here to protect the public's investment. It must be realized that major projects do fail, even after hundreds of millions of dollars have been invested. And it is therefore incumbent upon the Government to insure that the collateral for the loan guarantee will minimize the risk of the public's money in the event of a default.

Senator SCHMITT. Mr. Roach, how much more do you have? We really are getting tight on time.

Mr. ROACH. I can finish in about 2 minutes.

Senator SCHMITT. What about your partner there? Is he going to need some time?

Mr. ROACH. Yes, sir.

Senator SCHMITT. Well, make it as short as you can. You have covered many of the essential points of your testimony and the rest of your testimony will be in the record.

Mr. ROACH. I guess the last point I would like to make is the whole issue of collateral. There have been assessments that the collateral-to-debt ratio being offered by Tosco is 1.66 to 1. However, we have recomputed these calculations and I think there is a chart which we would like to enter into the record, that shows this falls to 1.3 to 1 merely by eliminating factors such as cost of inflation during construction and startup costs, which are included in the collateral estimates. And if the failure of the project occurs, it would decrease the value of the project's assets and even drive down the value of the mortgaged land. So, in a sense, what Tosco has offered as collateral would fall in value greatly if the need to collect on that collateral occurred.

With that, I would like to turn it over to Mr. Markey.

Mr. MARKEY. Thank you, Mr. Chairman.

One important goal of the Energy Security Act is the development of an environmentally sound synthetic fuels industry. I've submitted some supplemental testimony which staff members should have. I will very quickly summarize it. This also summarizes the material in our previously prepared testimony.

ENVIRONMENTAL PROBLEMS

Listening to and in reading Tosco's materials, one gets the impression that all of the problems, the environmental problems, are solved. Indeed, there seems to be a great transformation from the problems which afflicted the shale industry as it moves from Colorado's Piceance Basin to the offices of DOE and the Halls of Congress.

Now, just 2 months ago I shared a podium with one Tosco Corp. scientist and several university researchers who discussed the demand, uncertainties, and problems which still remain. During

the life of the Colony operation some 400 million tons of spent shale will be produced. Crushing and the heating of rock unlocks the salts and toxic materials. Snowmelt, rainfall, ground water, can dissolve those salts and pollute ground water or streams.

The solution of these and other problems has attracted enormous attention and concern, plus substantial research. However, the test plots used for reclamation research are microscopic compared to the millions of tons of waste which will be dumped during commercial operations. A number of management techniques have been tested to insure some measure of revegetation success. With those techniques, plants have grown for several years. However, without intensive management, revegetation is unsuccessful.

Even with the success, there have been several problems discovered, including the uptake of toxic materials by the plants. Despite those achievements, research has only scratched the surface. Revegetation is only one challenge of disposing the spent shale. Many problems are unsolved. Still untested is long-term erosion potential, the hydrology and leaching potential of large waste piles in different climatic conditions, geotechnical stability, the rate of new soil formation, and the ultimate fate of leachate during and after the completion of operation.

No one knows whether you can walk away from a spent shale disposal area without continuing to provide intensive management. There are several other concerns: air, wildlife, health safety, and socioeconomic problems that similarly have uncertain impacts. Hence, one of the most important products of these first generation projects, if they are built—especially if they are built with Federal assistance—is the environmental information which they will provide, monitoring access to the site by researchers, reporting of results of monitoring to concerned agencies.

Public access to monitoring and research data is crucial to assist us in deciding the future of the industry. The monitoring proposed by the contract is largely dependent upon monitoring required by other agencies. Several important areas of concern are not included in the monitoring agreement, especially biological and ecological monitoring, complete characterization of pretreatment gas streams and emissions, and others.

We tried to conduct a careful review of all of the agreement to assess its adequacy, but most of the important data right now is out in Colorado. Furthermore, in discussions with us, DOE has discussed some of the emissions. However, we would make some observations.

Many opportunities were lost to fully assess the biological impacts of the project and regional ecological studies which are proposed instead, are not presently adequate. Many of them do not exist. DOE could follow one of the examples set in the socioeconomic negotiations requiring Colony to cooperate with other shale projects in developing regional monitoring really needed.

Some other additional problems are that some of the data may remain confidential; information submitted to the Secretary may never see the public eye; analysis submitted or recommendations for remedial action are dependent upon the borrower judgments; no remedial action is required in response to problems identified by

monitoring. We have also made several recommendations which are in the supplemental material.

The most immediate impact is not ordinary environmental hazards; rather, they are community development problems. The problems with respect to the negotiations and the inadequacy of the commitments that have been made thus far are further discussed in the prepared testimony. I can answer any further questions you have.

[Prepared statement and supplement follow:]

STATEMENT OF

COLORADO OPEN SPACE COUNCIL
ENVIRONMENTAL POLICY CENTER
FRIENDS OF THE EARTH
NATURAL RESOURCES DEFENSE COUNCIL

CONCERNING

TOSCO LOAN GUARANTEE AGREEMENT

BEFORE

THE SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

October 7, 1981

Today this Committee will review the TOSCO loan guarantee. TOSCO's share of the Colony oil shale project is one of the first three synthetic fuel ventures subsidized through the $17.5 billion Energy Security Reserve. It is the only one of the three over which Congress has approval authority.

The conditions of the TOSCO loan guarantee and the negotiating process through which it was developed could establish a precedent for future synthetic fuels subsidies, and thus have a significant impact on the disposal of billions of federal dollars and the development of a synthetic fuels industry.

For these reasons, we believe it is essential that Congress carefully scrutinize all the conditions of the contract and the negotiations which preceded it.

To date, this has not been done, and without such a careful assess-

ment, Congress will not be able to make a sound judgement of the substantive aspects of the contract, or the quality of the negotiations conducted by DOE. This is very unfortunate for the loan guarantee does not adequately protect the taxpayers' investment, nor does it ensure that appropriate environmental safeguards are incorporated into this project. Such failings are manifestations of an incomplete and closed negotiating process in which government representatives failed to thoroughly assess the project's need for financial assistance, and made it difficult for citizens and state and local officials in the impacted region to closely follow and fully participate in the contract negotiations.

The issue before this Committee is not whether to proceed with the Colony project. Rather it is the need for and the conditions of the TOSCO loan guarantee. Indeed, while a $1.112 billion loan guarantee may be essential to TOSCO, it is irrelevant to the ultimate fate of the Colony oil shale project.

The TOSCO loan guarantee is a poor investment of federal dollars and should be renegotiated or rejected.

It is essential to ensure that the contract and related negotiations will be carefully scrutinized in order that future synthetic fuels subsidies and negotiations will avoid similar problems.

The following issues are critical to any thorough assessment of the loan guarantee.

Financing

The Energy Security Act clearly denotes that the objective of federal financial assistance for the production of synthetic fuels should be one of:

encouraging and supplementing and not competing with or supplanting private capital investments in the development of domestic sources of synthetic fuel."
(PL. 96-294, Sec. 100(b)(2)(F))

A central issue of the loan guarantee is whether it is really needed to assure the completion of the project. All evidence points to the fact that insufficient attention was given by DOE to the question of whether the project needed federal subsidization amid compelling indications it could continue without such assistance. Government negotiators focused soley on TOSCO's request and failed to assess Exxon's capability and commitment to continue with the project should TOSCO be denied the loan guarantee.

We seriously question the advisability of analyzing projects in parts. A failure to consider the resources and intentions of other partners totally distorts the true assessment of project feasibility, its economic conditions and the true need for federal financial assistance. This failure to look beyond TOSCO in evaluating the necessity for a loan guarantee is particularly ironic given that DOE, in testifying on the potential for proper management of the project, placed great reliance on the management resources and expertise of the Exxon Corporation.

While Exxon has never made an absolute commitment to continue the project in the event of a TOSCO withdrawal, over the past several years it has made public statements indicating that its activities in the area of synthetic fuels are planned without regard for the prospect of federal financial assistance. It is currently seeking additional lands for two other projects through a land exchange and additional DOI leasing.

Moreover, although DOE officials have testified that their analysis of

TOSCO's financial situation supports the need for some form of financial assistance, the negotiators never assessed how much TOSCO itself actually requires. No independent auditor was ever hired to determine how much of its own capital TOSCO could reasonably contribute, and whether it was feasible for the company to obtain the remainder of its capital needs from other, private sources instead of the federal government. The only analysis of need was presented by the TOSCO Corporation itself in its proposal to DOE. The only confirmation of TOSCO's analysis was provided by Lehman Brothers, Kuhn, Loeb, Incorporated, TOSCO's investment banker.

Casting further doubt on the necessity of the loan guarantee is the fact that TOSCO plans extensive activities and investments in other oil shale projects during the time that it will be receiving federal loan guarantees (1981-87).

Less than one month after signing the assistance contract for the Colony Project, TOSCO announced that it was initiating a "demonstration pilot program", the first step toward a commercial project, at its Sand Wash site in Utah. TOSCO plans to spend $41 million on this project through 1984.

In its loan guarantee proposal to the DOE, TOSCO indicated that between 1981 and 1986, it planned to make $138 million in capital expenditures on oil shale projects in addition to Colony. This amount represents 37.2% of TOSCO's total commitment to the Colony project for the years 1981 through 1987.

During the years 1981-1986, TOSCO plans to expend $713 million on capital expenditures for refineries. DOE's analysis fails to assess whether such expenditures are appropriate. In light of the present and projected

refinery capacity surplus, it is likely that TOSCO can make a much greater equity contribution than is currently required under the terms of the agreement.

The more closely one examines the Colony project, its partners and the history of the loan guarantee negotiations, the more it appears as if the guarantee was granted to assist a particular company rather than a synthetic fuels project.

Protection of the Public's Investment

It must also be realized that major projects do fail, even after hundreds of millions of dollars have been invested. In recent months, Boston Edison cancelled the Pilgrim Unit 2 nuclear plant after investing $291 million dollars, and Northern Indiana Public Service Company cancelled the Bailly nuclear plant despite having sunk costs of $205 million and facing additional charges for cancellations and equipment. It is therefore incumbent upon the government to insure that the collateral for the loan guarantee will minimize the risk to the public's money in the event of a default. Unfortunately, the security for the loan guarantee is quite thin. TOSCO's exposure is limited to funding its subsidiary's (Oil Shale) 25% of the project. The value of project and additional lands is assessed at $319 million. The remaining collateral consists of Oil Shale's assets in the project itself, which gain most of their value as a result of the federal loan guarantee. In a sense, then, TOSCO is using the government's own loan guarantee as collateral. Additionally, the fact that Exxon owns the controlling share of the Colony project may significantly affect the amount of control the government can exercise to protect its own investment. Governmental

relations with Exxon would be limited to the operating agreements which were established between Oil Shale and Exxon. Moreover, the government receives no technology benefits by continuing its participation in the project. In the event of a default, Oil Shale, TOSCO and Exxon are required only to grant to the government those licenses, patents, technologies and other proprietary rights which are necessary for the completion and operation of the project. Despite the fact that it would be taxpayers' money being used to complete the project and prove the commercial value of these processes, the government will receive no royalties or additional access to the technology. TOSCO retains all of its patents, licenses and proprietary rights.

By creating a separate corporation to participate in the Colony project and receive the federal loan guarantee, TOSCO limits its exposure and effectively insulates its resources against failure while still reaping the benefits of federal subsidies and any project successes. While this creates a very favorable situation for TOSCO, the risks become greater for the taxpayer.

It appears as if the DOE negotiators did a much more effective job of protecting the assets of TOSCO than the capital of the federal government.

Consultation with State and Local Organizations

The ultimate impact of the TOSCO loan guarantee will be felt most forcefully in the sparsely populated localities of western Colorado which surround the Colony Project. Clearly, both TOSCO and the DOE negotiators had a responsibility to establish communications with representatives of Colorado and the impacted region early in the negotiating process, in order

that their concerns would be fully addressed and adequate solutions incorporated into the final agreement. However, the history of the state and local organizations' attempts to ensure that socio-economic questions would be adequately addressed in the loan guarantee contract is one of continual frustration. Communications, inquiries and suggestions by state and local representatives were continually rebuffed throughout the negotiating process. In April of this year, DOE negotiators told state and local representatives that it was the duty of the negotiating team to expedite financial assistance to synthetic fuels projects, and that long-term questions and cumulative impacts were not issues of concern to the negotiating team. Only when DOE officials realized that the support of Colorado was essential in order to gain approval of the loan guarantee were attempts made to address the socio-economic concerns of the state and local governments. Similarly, TOSCO proved reluctant to comply with state and local requests. There is great concern that the Battlement Mesa community will not completely mitigate the severe impacts of development in Garfield County. Not all of the population drawn to the area by the Colony project will settle at Battlement Mesa. Parachute, Rifle and other nearby towns will also face growth related problems. Increased traffic and social service demands which will be faced by these other communities cannot be solved by programs in Battlement Mesa. Furthermore, even TOSCO's commitment to the Battlement Mesa project is limited. The Colony Project will only provide a basic infrastructure (roads, utilities, sewers, etc.) and a mobile home community. The construction of the town itself will depend on other private investments. Given the capital shortage situation which currently exists (and, indeed, is exacerbated by the multi-billion dollar

synthetic fuels subsidy program), there are serious questions about Battlement Mesa's ability to fully meet community growth needs.

Clearly, Colorado and local governments of the Western Slope have a major interest in this project, and the manner in which administrative and legislative powers are exercised can significantly affect its ultimate fate. It is essential, therefore, that such major forces be full participants in the negotiating process. This requires more than just last minute, politically motivated concessions from federal negotiators and the industry.

Early contacts and complete cooperation and communication with state and local governments are important for the local citizens impacted by projects and are also critical elements in reducing the amount of risk associated with the public's investment.

Environmental Monitoring

The Colony project is a first-of-its-kind initiative of enormous scale. It is an economic, technological, and environmental experiment, albeit on an enormous commercial scale. One result of the federal assistance provided to the project should be the assurance that it provide the maximum possible data and in particular data on effluents, emissions, and occupational hazards. The monitoring program required by the contract does not appear even remotely to approach this goal.

Set forth on pages 12-13 of Exhibit 1.2E to the loan guarantee agreement, The Environmental Monitoring Section appears to do little more than recite monitoring required by the PSD (Clean Air) permit and the Mined Land Reclamation permit. While this might be adequate for a familiar technology, it

is not adequate for innovation of the scale of the Colony project. Specifically, the agreement fails to establish sufficient requirements for:

- o Monitoring of unregulated substances including, for example, carbonyl sulfide, carbon disulfide, polycyclic organic matter emissions, and surface or groundwater contamination by cadmium, arsenic, lead, phenols, and other organics.
- o The presentation and analysis of monitoring data.
- o Project specific ecological impacts (on wildlife and flora).

These failings are curious in light of the fact that DOE's own staff and outside evaluaters repeatedly identified the inadequacy of the monitoring plans as a major flaw in the proposal submitted by TOSCO (see tabs B,C,G,H of Volume V of the DOE Financial Team Files).

In contrast, the Department of the Interior's prototype oil shale leasing program involves a much more comprehensive interdisciplinary monitoring program. The lease requires specific baseline and operational monitoring of air and water quality, reclamation and revegetation, hydrological, flora and fauna, and related effects. It also requires the submission of a detailed construction and operation plan which identifies mitigation efforts. Based on the requirements of the lease and an analysis of baseline data, the USGS has established criteria for operational monitoring. These criteria and the project plans are then used to develop a monitoring scope of work document which is reviewed, revised and ultimately approved. It provides a comprehensive guide to the experimental design and conduct of monitoring throughout the project. The lease gives

USGS discretion to require additional environmental controls if the monitoring identifies unacceptable problems.

Not only does the agreement establish insufficient monitoring requirements, it also appears to lack any provision whatever for dealing with environmental safety and health problems should they arise. The federal government must not put itself in the position of pushing forward in the face of evidence that the project is creating unforeseen health or environmental hazards. The agreement should provide for a prompt and complete response to any data that suggest that project construction or operation is creating a threat to human health or the environment.

Conclusion and Recommendations

The Energy Security Act authorizes the distribution of massive federal subsidies for the development of a commercial synthetic fuels industry. This is an inefficient allocation of scarce capital, will artificially accelerate the development of an immature industry, and will exacerbate environmental and socio-economic problems. Because of these consequences, any subsidy agreements completed under this Act should include adequate financial, environmental and socio-economic protections.

The potentially precedent-setting nature of the TOSCO loan guarantee agreement necessitates that it be carefully scrutinized. We believe that major weaknesses exist in the present loan guarantee agreement. Critical questions remain about the real need for federal financial assistance, the adequacy of environmental monitoring provisions and the protection of the public's capital. All of these issues should be resolved before the agreement is allowed to be implemented. Furthermore, we recommend that all synthetic fuels subsidy agreements incorporate the following procedures

and standards:

- Independent auditors should be employed to verify the need for federal financial assistance and establish the level of need.

- Determination of need and the decision to grant federal assistance should be based upon a cumulative evaluation of the resources and commitments of all project participants.

- The cash value of collateral for loans and loan guarantees should be appraised and be equivalent to the subsidy.

- Representatives of impacted areas should be full and early participants in negotiations for federal assistance. Explicit mitigation requirements approved by state and local officials should be conditions of the assistance agreements.

- Assistance agreements should include specific provisions for monitoring programs, including the monitoring of unregulated substances, to provide maximum possible data on effluents, emissions and occupational hazards. Provisions should also allow for public access to monitoring data and analyses, and include contingency plans to address environmental health and safety problems.

- There should be an opportunity for meaningful involvement by the public in evaluating project subsidy applications and DOE or SFC actions.

SUPPLEMENT TO PREPARED TESTIMONY - ENVIRONMENTAL ISSUES

One important goal of the Energy Security Act is the development of an environmentally sound synthetic fuels industry. Reading the documentation provided by Tosco to the Department of Energy, one gets the impression that all the problems are solved already. That is unfortunate. Indeed, there seems to be a great transformation in the problems which afflict the shale industry as it moves from Colorado's Piceance Basin to the halls of DOE and the halls of Congress. Just two months ago I shared a podium with one Tosco Corporation scientist and several university researchers who discussed at length the many uncertainties and problems which still remain.

There is no time to describe all the remaining problems in detail, but it may help to summarize one area of concern -- reclamation.

During the life of the Colony operation (assumed to be about 20 years), 400 million tons of spent shale will be produced. Crushing and heating the rock has unlocked the salts and toxic materials present. Rainfall, snowmelt, and groundwater can dissolve the salts and pollute groundwater or streams. The leachate is basic, with a pH ranging from 9 to 11 and sometimes reaching 13. Tosco's leachate is closer to 9 (7 is neutral water). It contains flourides, boron, arsenic, molybdenum, selenium, and organic materials as well as alkaline salts. A 1 million BPD industry will process enough shale containing 20,000 tons of arsenic or one million tons of fluorides per year -- comparable to the annual industrial consumption of these toxic materials. Isolation is imperative.

The solution to these problems has attracted enormous attention and concern plus substantial research. However, the test plots used for reclamation research are microscopic compared to the millions of tons of waste which will be dumped during commercial operations. Their limited size has made it impossible to study anything but revegetation and leachate characteristics.

A number of management techniques have been tested to ensure some measure of revegetation success. They include preleaching the shale to remove surface salts, isolating with topsoil or topsoil like material, soil amendments, seed mixtures, supplemental irrigation, and other techniques useful in standard arid lands revegetation and planting in a high salt medium. With these techniques, plants have grown for several years. Without intensive management revegetation is unsuccessful.

Even with the success which has been achieved, problems have been discovered, such as the takeup of molybdenum, harmful to grazing animals which will use this land after mining, without a deep enough cover of topsoil over the spent shale.

Concern about dissolved salts and toxic materials is great because of their ultimate fate -- the Colorado River system, which is already overburdened by high salts.

Despite these achievements, research has only scratched the surface. Revegetation is only one challenge of disposing spent shale. Unfortunately, many problems are unsolved (mainly because

the small revegetation plots are unequal to the task). Still untested is the long term erosion potential of the waste embankments, the hydrology and leaching potential of large waste piles in different climatic conditions which occur in the oil shale region, the geotechnical stability of large embankments, including saturated and unsaturated conditions, the rate of new soil formation, the ultimate fate of leachates during and after the completion of operations. No one knows whether you can walk away from a shale waste disposal area without continuing to provide intensive management. Tosco's claims that its operation will not pollute streams is based on its ability to contain and manage pollutants during retorting operations, not after abandonment.

The other environmental concerns -- air, wildlife, health and safety, and socioeconomic problems -- are similarly uncertain. Hence, one of the most important products of these first generation projects if they are built, especially if they are built with federal assistance, is the environmental information which they will provide. Monitoring, access to the site by researchers, reporting of results of monitoring to concerned agencies, and public access to monitoring and research data is crucial to assist us in deciding the future of the industry and in designing new, more effective environmental controls. One warning, however; to conduct monitoring of one of these unprecedented industrial facilities is not enough. I is also necessary to be able to react to hazards identified by such monitoring and correct them in the initial operation.

The monitoring proposed by the contract with Oil Shale is largely dependent on monitoring required by other agencies. DOE has added

1. Monitoring of new soil development.
2. Occupational exposure to various hazardous and toxic substances.
3. Worker health surveillance.

Several important areas of concern are not included in the monitoring agreement:

1. Biological and ecological monitoring
2. Complete characterization of pre-treatment gas streams and emissions.
3. MSHA and OSHA permits and related safety variables and reporting (despite the requirement of a safety prevention program).
4. Some surface hydrology may be poorly characterized.

In general, the negotiators seemed to be responsive to DOE scientists who made monitoring suggestions. Still, important factors were omitted. We discussed some of these omissions with DOE. They defended the monitoring agreement in two ways:

1. Many monitoring programs suffer because they accumulate too much useless data. We did not want to make that mistake.
2. Biological and ecological studies must be done on a regional not site-specific basis.

We tried to conduct a careful review of all of the agreement to assess its adequacy, but most of the important data is in Colorado.

However, we can make the following observations:

1. Many opportunities were lost to fully assess the biological impacts of the project. It is possible to test various impact hypotheses in and around the project area. It is also essential to investigate early-warning biological indicators on tract, in aquatic systems, and the like. Sub-lethal biochemical studies do not need regional analysis. The productivity, succession, structure and composition of vegetation remains untested.

2. Regional ecological studies are not adequate. Some do not exist. DOE could have followed one socioeconomic example, requiring Colony to cooperate with other shale projects in developing the regional monitoring really needed.

Perhaps just as important as the data obtained is what happens after. There are several problems with the Tosco contract:

1. Some data may remain confidential. Section 12 of the monitoring agreement states: "Information made available or submitted to the Secretary with respect to the environmental performance or environmental consequences of the Project shall not be resumed to be trade secret and other business confidential information unless a claim is made at the time such information is made available or submitted."

2. Information submitted to the Secretary may never be made available publicly.

3. Analysis submitted and recommendations for remedial action are dependent on borrower judgments, not DOE's.

4. No remedial action is required in response to problems identified by monitoring.

We would make several recommendations:

1. The SFC and DOE should take advantage of recommendations of interagency review (including EPA and DOI), and the public concerning monitoring needs.

2. Remedial action needs to be required in response to newly discovered hazards.

3. The monitoring program needs to be dynamic, responding to needs as they are identified and changes in the projects.

4. Data must be made public. There should be no confidentiality claims.

The most immediate impact to be felt in northwest Colorado from oil shale facilities will not be ordinary environmental hazards, it will be community development problems. In fact, they already afflict Parachute, Rifle, Meeker and other nearby towns.

85-595 O—81——7

A number of measures may be taken to mitigate such community impacts. Tosco has made much of its commitment to building the new town Battlement Mesa to help ameliorate the difficulties.

Battlement Mesa, however, is insufficient to meet the needs of the communities in the area.

1. Only 50% of the new population generated by the Colony project will settle in Battlement Mesa. The remainder will continue to burden existing communities. Battlement Mesa will accomodate more people, from other projects or other sources, but will not assist the other communities.

2. Tosco's commitment will not include all the necessary social services affected communities will need.

3. Many uncertainties remain. Flaven Cerise, Garfield County commissioner pointed out in negotiations that the companies have been cooperative so far, but the counties do not yet know all the impacts.

4. Impacts which cross county boundaries will not come under or be subject to county permits.

Negotiations between DOE and the State of Colorado were frustrating and often acrimonious. DOE resisted Colorado's suggestions until it became obvious that State support would be necessary to gain Congressional approval. At the last moment DOE's proposed contract conditions met the State's approval. If genuine negotiations had proceeded throughout the period of discussions, the quality of the socio-economic conditions may have been improved.

The federal government's importance, particularly the role of the Synthetic Fuel Corporation will increase in the future. Several of the projects requesting federal aid are on federal land where local permitting authorities are preempted under the Mineral Leasing Act and Ventura County v. Gulf Oil Corp. For these projects, county permitting authority will not be able to enforce needed front end community development assistance, and aid from the SFC will be very important to ensure the success of the projects.

In the future:

1. Both parties (DOE or SFC and the State) must recognize their responsibilities and capabilities to negotiate shared efforts in socioeconomic mitigation. The State needs to recognize what it can demand. The DOE or SFC must negotiate in good faith.

2. The public should be involved in discussions.

---

(1) The Energy Security Act requires the applicant to propose and the DOE or SFC to evaluate and approve acceptable monitoring programs for environmental effects and worker health and safety.

TOSCO BASIS FOR COMPUTING COLLATERAL VALUE

	$ (millions) *	
Construction costs after 1980	1,058	
Construction costs 8-12/1980	14	(7 as spent)
Working capital	50	
Tosco Technology	29	
Shale oil reserves	318	(1987$)
Start up	23	
Interest during construction (including guarantee fee)	352	
Total	1,844	
Guaranteed Debt	1,112	

Collateral/Guaranteed Debt ratio

According to Tosco	1.66
Eliminating interest during construction, startup, and counting late 1980 construction as spent	1.32

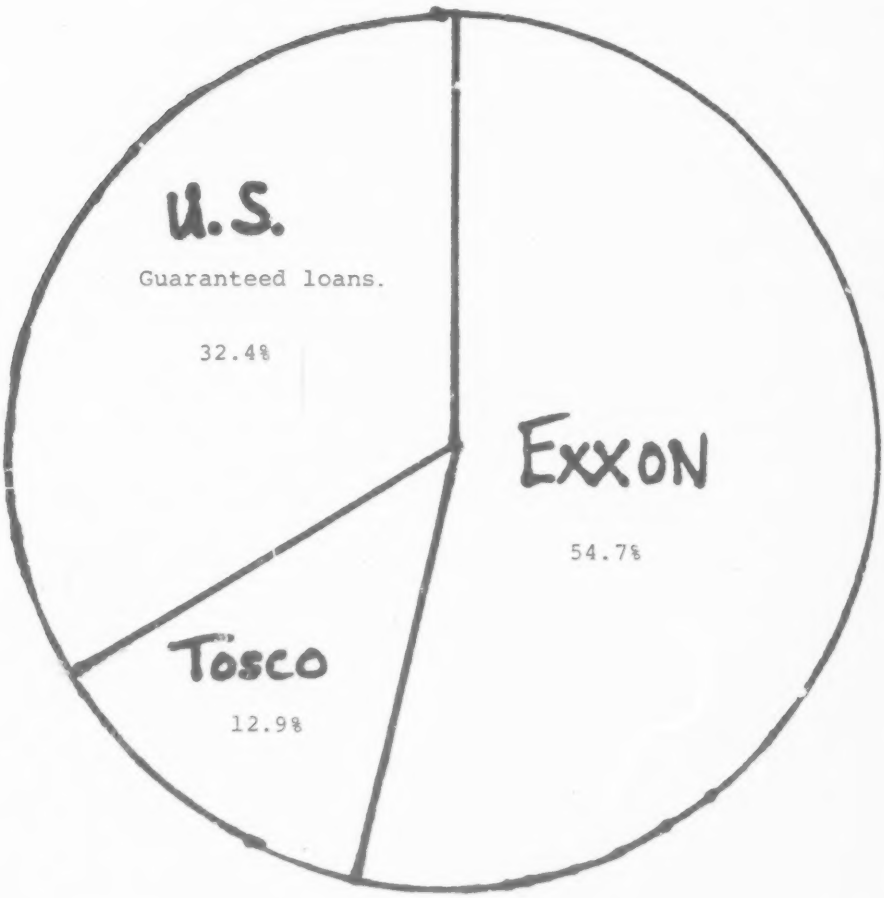
Neither DOE nor Tosco evaluated the value of the collateral properties if a default or project failure would occur.

* Except where noted, values are given "as spent" or in 1987$.

WHO WILL FINANCE

THE

COLONY PROJECT ?



". . . encouraging and supplementing and not competing with or supplanting private capital investments in the development of domestic sources of synthetic fuel."

--P.L. 96-294 Sec. 100(b)(2)(F)

Senator SCHMITT. Thank you, Mr. Markey. And there are a variety of ways in which the environmental issues can be, and as you indicate, should be addressed. The immediate question before the committee and before the Congress is the approval of the loan guarantee, and I would like now to ask Mr. Mares if he would care to comment briefly on the statements of Mr. Roach about DOE's economic evaluation of Tosco's involvement in this project. In particular, whether they are capable of capitalizing it in ways comparable, that are suggested to the ways they're doing in other capital expenditures.

Mr. MARES. The judgment was no; that it was critical for this guarantee to be made in order for this project to go ahead on a timely basis. I might also volunteer that the judgment about environmental impacts was very carefully considered, and there are provisions in the agreement related to access to the site, acquiring samples that can be used for an analytical purposes.

Senator SCHMITT. Do you care to comment about—again about your ability to get more information from Exxon about their intent, what their intent might be should the project not be funded?

Mr. MARES. They responded in a forum, 2 weeks ago, to the direct question. We can ask them the same question again. I would expect them to give the same answer, until the issue is directly presented to them. They have not made up their mind and would have to look at all circumstances at the time.

CATCH-22 SITUATION

Senator SCHMITT. So it's sort of a catch-22 situation. We really can't find out whether they will finance it unless we disapprove the loan. If we disapprove the loan, then they may not finance it.

Mr. MARES. That's correct. And the judgment of Congress was it was important for these projects to go ahead.

Senator SCHMITT. But the judgment of Congress also, as I indicated, is that they shouldn't go ahead if they are going to compete, if they would supplant private capital investments.

Mr. MARES. One point I might make relative to your opening statement, the funds that are required for this are not all in 1 year. They go over a period of about 6 years, the maximum in any one year being about $450 million, not 1.2 billion in one particular year.

Senator SCHMITT. Mr. Lyon, the only independent study of which I am aware regarding the financial stability of the Colony project examines only the oil shale corporation itself and does not examine Tosco's further ability to support the project beyond its projected involvement. All statistics provided beyond that relating to Tosco and Exxon or relationships to the project itself have been provided by Tosco and its investment banker. The study did not discuss Exxon's readiness or willingness to finance more of the project, although they, by spending $300 million, appear to have a fair amount of faith in the project and might be interested in assuming more of the financial burden later on. Do you care to comment on that particular situation, where the details seem to be—at least the details available to the committee, are somewhat sketchy?

Mr. LYON. Senator, Tosco provided to the DOE in the course of extensive negotiations under two administrations its complete financial past, present, and its best projections about its future that were available to it, not only for its participation in the Colony project, but for all its other activity. Our investment bankers, Lehman Brothers Kuhn Loeb, who have an independent reputation to protect, also participated in that analysis and the providing of those figures. And there was extensive financial analysis of those figures by the DOE, as well as in the early stages of processing, by a task force working independently, from the Synthetic Fuels Corporation, in conjunction with DOE. We believe that that analysis has been as thorough and as painstaking as any we know of in analyzing the ability to go forward with this kind of project.

With respect to the question of Exxon, I am sorry to sound like a broken record—together with Mr. Mares—but the fact is that Exxon did not achieve whatever prominence it enjoys by making decisions which were not presented to it. It makes decisions when they come before it, to be made.

They have decided that 60 percent of the Colony project, those costs and those returns, are an appropriate kind of investment. They have not decided one way or the other whether 100 percent is. The project is viable now. It is viable as constituted with 60 percent being taken by Exxon, 40 percent being taken by Tosco. And your analysis that this is in a sense a catch-22 situation, that the only way to find out whether it is viable in some other way is to precipitate that other situation, is correct. But that is not because anyone is trying to put the Government in that position. That is not the result of anything artificial. That merely is the fact—I don't know, Exxon doesn't know, and nobody knows what would happen if Tosco were not able to carry its share.

OTHER CAPITAL INVESTMENTS

Senator SCHMITT. What about these other capital investments that you have planned in your own non-oil-shale endeavors? And including some oil shale endeavors? Is that at all inconsistent with your application for this loan?

Mr. LYON. Well, those were fully disclosed in our application for the loan, and were discussed at great length. I can comment on them very briefly. We fall in—they fall into two basic parts: Tosco's cost of the Colony venture above and beyond the loan guarantee is a very substantial amount, as I mentioned in my testimony. It is nearly twice our current net worth. We intend to provide that in part from borrowings and financings from us, and a part from our cash flow, from our refining operations. Tosco went into refining in 1970 after 15 years of exclusively oil shale development, because it was clear that we needed a major source of cash flow to enable us to participate and continue to participate in oil shale development.

Those refinery expenditures that I referred to are of two kinds: Some are environmentally or operationally required; but principally they are an investment, projects to increase the cash flow from the refinery.

Now, one of the analyses that was indeed made in connection with the loan guarantee was an analysis demonstrating that the making of those incremental refining investments during the period of the construction of the Colony project, because of the increased cash flow, strengthened rather than weakened our ability to carry our share of the Colony project.

The oil shale investments, the figure that was included there was for the maximum that we could conceivably project expending, not only on our own account, but on the account of ourselves and our partners in other oil shale activities. Now, that included one project which now is in limbo. That is a project in the People's Republic of China, which was to be financed principally by the People's Republic of China and by a consortium of Japanese companies. And owing to the change of fiscal circumstances in China, that one has been indefinitely postponed. It included——

Senator SCHMITT. Mr. Lyon, I am going to interrupt you there, because I am going to have to leave shortly, and Senator Garn will arrive and may have a few questions. Have you looked for other financing?

Mr. LYON. Yes, indeed. We are at this moment continuing to canvass opportunities for financing for our share of the project.

Senator SCHMITT. Before the Government decided the loan guarantee would be granted, pending congressional approval, had you been able to demonstrate that there was no comparable credit available elsewhere?

Mr. LYON. I believe we have made that demonstration; yes, Senator.

Senator SCHMITT. Were documents presented to DOE that show that?

Mr. LYON. Yes, sir.

Senator SCHMITT. Affidavits, and so forth?

Mr. LYON. The principal documents which showed that were the statements submitted, and in addition there was considerable oral discussion and negotiation of this part by the investment banking

firm who are the principal agents for our financing in conventional financial markets. They gave it as their expert opinion, after a variety of discussions with their sources of finance, that project financing of a conventional nature would not be available for the first full-scale commercial plant, and Tosco's participation.

Senator SCHMITT. Thank you, Mr. Lyon.

And finally, Mr. Marienthal, was there any disagreement within the adminstration relative to this loan guarantee?

Mr. MARIENTHAL. I can't speak for the administration, Senator. But from the Department of Defense's point of view, in working with the Department of Energy or with the Synthetic Fuels Corporation, we were all together as a team, and we participated very closely in the negotiations with Tosco.

Senator SCHMITT. Was OMB involved in these negotiations at all?

NEGOTIATIONS ANALYZED

Mr. MARIENTHAL. In the negotiations? Not to my knowledge. But they were involved in the administration, from my perspective, once the negotiations were wrapped up and the so-called deals were presented to the decisionmakers. The Office of Management and Budget did analyze them.

Senator SCHMITT. But do you know whether or not in the context of other demands that they are making on the Congress for financing if they approved or disapproved one way or the other? Or was it not necessary for them to do so?

Mr. MARIENTHAL. I'm sorry, sir?

Senator SCHMITT. In view of the OMB's other activities relative to budgetary items, on- and off-budget, did they analyze this and approve or disapprove it, from their perspective? Or was that not necessary, to do so, under the DPA?

Mr. MARIENTHAL. I cannot speak for OMB on this.

Senator SCHMITT. But do you have similar authority under DPA?

Mr. MARIENTHAL. No, sir.

On energy matters, under the Defense Production Act, the Department of Energy is the office of primary responsibility.

Senator SCHMITT. I should ask you, Mr. Mares, does the DOE have prime, sole authority for making this decision? Is it necessary to get the approval of OMB?

Mr. MARES. The decision on this contract was ultimately made by the President, Senator.

Senator SCHMITT. Do you know what OMB's position may have been, if they expressed one?

Mr. MARES. I came aboard after the decision on this was made, and was not a direct participant, and do not know the direct answer to your question. I could find it out.

Senator SCHMITT. We would appreciate that, for the record.

[The following information was received for the record:]

OMB's ROLE

In March 1981, the Director of the Office of Management and Budget (OMB) transmitted a letter to the Secretary of Energy which supported the Defense Production Act "fast start" synthetic fuels program, under which the Oil Shale Corporation applied for the loan guarantee. In accordance with its statutory requirements, on August 5, OMB provided the necessary certification of funds for the Tosco

agreement. OMB serves as staff to the President and was not involved in any of DOE's negotiations with Tosco.

Senator SCHMITT. Mr. Chairman, I appreciate again, and I expressed it earlier—your allowing this hearing to proceed. I think it has been enlightening. We have had a good preliminary exchange of views, good testimony. Not all of the questions have been answered as yet. I may submit some for the record, if I may. And once again, I want to thank you for letting us examine this interesting subject on credit allocation.

And I am going to have to go and leave you and appear in the Supreme Court.

The CHAIRMAN. I understand you have a problem over there.

Senator SCHMITT. Hopefully, it's not a problem. Hopefully, it's an opportunity.

The CHAIRMAN. Hopefully, they will treat you fairly and justly when you are over there.

Senator SCHMITT. Thank you, gentlemen.

The CHAIRMAN. Gentlemen, I do have a few more questions for you.

First of all, I apologize for not being able to be here at the start of the hearing. I am sure you are aware the hearing was at the request of Senator Schmitt. And we had so many conflicts today, with—complicated by the death of President Sadat yesterday, and a Republican conference meeting this morning, and meeting of many—not just members of this committee, but other Senators, at the White House, on AWACS, and many other difficulties. So we had to run this in split shifts.

I would like to ask unanimous consent—and when you are the chairman and you are the only one here, no one will object, to my opening statement being placed in the record. Senate procedures work pretty well when you are all alone. You can do anything you want, by unanimous consent (see p. 3). [Laughter.]

But I do appreciate your willingness to appear.

ESTABLISHING A SEPARATE CORPORATION

Mr. Lyon, what is Tosco's reason behind establishing a separate corporation for the Colony project?

Mr. LYON. Mr. Chairman, the structure of the financing is the conventional, Wall Street style financing structure, for what is called a project financing. That is, to make sure that all of the required assets that are required to conduct a particular project, the land, the water rights, the technology rights, the licenses, et cetera, to insure that all of those are available to the project and to the security of the project, where a security instrument is granted.

They are all put into a separate entity, and that entity is subject to restrictions about its use of funds, about its required capital availability, et cetera, to insure that they are fully available, notwithstanding whatever vicissitudes may befall the remainder of the corporation. That is the reason for that structure. It is quite conventional.

The CHAIRMAN. Why does Tosco continue to invest capital in other oil shale projects, such as the Sand Wash project in my home State of Utah?

Mr. LYON. Mr. Chairman, as I mentioned at some length in my opening statement, Tosco has been devoted to oil shale development for more than a quarter of a century. Following upon the Colony project, it is our intent to participate in the second full-scale commercial project, which we anticipate will be our Sand Wash project in the State of Utah.

We are making the investments in that project which will bring it to a State that will enable a commercialization decision to be made essentially at the same time that the Colony project is scheduled to go onstream. The projected costs of that are approximately $41 million for a shaft mine and associated onsite work; an additional $8 million for socioeconomic studies and related offsite work. We are now seeking the participation of others in those costs, so that they will not be made at Tosco's expense in order to maximize our funds for the Tosco project. And discussions are now seriously underway for such third-party participation.

The CHAIRMAN. Has Tosco gone to the private markets in the past to obtain financing for the Colony project?

Mr. LYON. Yes. Tosco lived for the first 15 years of its existence entirely by financing in the private markets. We had no recurring income until we entered the refining business in 1970. And, in that sense, all of our costs of the Colony project in its initial development stages were obtained by private markets.

Now, at one time, when the Colony project was on the verge of commercial construction, in 1973-74, we sought private financing and had reached the letter of intent stage by means of making a product advance transaction with a large oil-fired public utility, which foresaw that energy would become short, and we were able to deal with them on the basis that they were going to in effect guarantee loans to us on a basis comparable to that under discussion here, and in return for that, would receive a commitment of the product from the plant over the period of the plant life at then-current market prices plus cost escalation. Had that transaction gone from the letter of intent to finalization, we would have been in production in approximately 1977. That utility would now be receiving oil at about $20 a barrel for no-sulfur fuel oil, and Tosco would be making a reasonable profit off the transaction. It failed for one reason. It failed because between the time of the letter of intent and while the negotiations for a more definitive document were going forward, the U.S. Government instituted petroleum supply allocation. It was readily apparent to that far-seeing utility that there was no point in being an ant public utility if the Government was going to come along and have you share the benefits with all of the grasshopper public utilities which had not seen fit to go forward.

That, in our view—that action—effectively precluded the use of such financing devices. And although, fortunately, for the last 10 months, the views of the Government on that kind of thing have been quite different, we note that the private markets have still not accepted that that is not something that is going to happen in the future.

Just last week another committee of the Senate reported out legislation which would grant broad petroleum allocation and price control powers, including over shale oil. For that reason, we believe

that that kind of financing is not any longer available, and that is the chief and most likely other kind of private financing for this sort of project.

The CHAIRMAN: Let me say at this point that I certainly am in favor of going ahead with the project and the development of synthetic fuels and have been all along. This committee took quite a different approach in how it should be financed and handled than did the Energy Committee.

And it was rather interesting at the time because I protested to then-Chairman Proxmire that the Banking Committee had no expertise in this area; although because of the financing end of it, we did have some of the jurisdiction.

We presented an alternative plan, compared to what Energy did, that I still happen to think made more sense, getting into guaranteed prices, rather than so much of the loan guarantee. But that is neither here nor there.

Other than the fact that I just want to present my viewpoint, I have no problems with the project. I have some problems with the way we do things here, whether it is Chrysler loan guarantee or other types of loan guarantees and the way we try and help to subsidize, in some manner, private industry.

I would only say I think there was a better way to have handled it and still have you be able to go with the project, because I very much favor that. And I think you are undoubtedly aware that I do.

But in any event, could you explain to me what Tosco brings to the Colony project that Exxon, with all of its huge size and economic strength, could not?

Mr. LYON. Mr. Chairman, what Tosco brings to the project that Exxon does not is the project. Tosco invented the project. Tosco is the only company that has continued with the project. The technology to be employed in the project is Tosco's.

It was Tosco that guided the project into such realizations as the realization that unless unprecedented levels of socioeconomic preparation were made, the project would be a failure. And the industrial responsibility for those—Exxon is fully on board on all of those points—but they did not invent them.

And indeed, if I may very briefly editorialize, that kind of innovation, both technological and economic, in our society tends to originate with the smaller enterprises and ultimately to be adopted on a scale which includes the larger ones, but to preserve that insight, that specific knowledge of the technology and the project, and the diversity of competition of small companies in the total industry.

We feel that Tosco and Exxon's combination is the ideal one to carry out the project.

The CHAIRMAN. Mr. Mares, what is the highest possible liability that the Government could incur if Tosco were to default?

Mr. MARES. As I recollect, it is about $1.2 billion. But I can get you the exact figure.

The CHAIRMAN. That's close enough for Government work. We round off to the nearest $100 million in the Appropriations Committee.

I used to run an entire city for less than $100 million, police, fire, and everything. And I sit on the Appropriations Committee, and we do round off to the nearest $100 million.

Mr. MARES. When we operate my program at $400-odd million, we look at much smaller amounts than rounding to the hundreds of millions, Senator.

The CHAIRMAN. I wish we did, too.

COLLATERAL SECURED TO THE GOVERNMENT

What specific collateral is secured to the Government in the contract?

Mr. MARES. Well, I can't give you the specifics, but I can tell you the generic. You have, of course, the collateral as the lender on the project, the percent share of the asset of the project.

In addition, it probably is important that there are clear rights to the technology to be sure that the technology is available in the event of default, so that the project could go forward from a technological standpoint.

And there are additional shale lands—Tosco's share is valued at approximately $100,000—that are in the close vicinity of this project that we pledged as collateral.

I think the clear judgment of the Department was there is adequate collateral to protect the Government's interest and the taxpayer's interest.

The CHAIRMAN. What plans does the Department of Energy have to administer the project?

Mr. MARES. We are putting together a group of people to administer it in a fashion that if the Synthetics Fuel Corporation decides to accept the project, that it can be transferred to them. If their board chooses not to, it would stay with us and we would monitor it in a responsible fashion, considering all of the various aspects of the project.

The CHAIRMAN. Does the Department of Energy retain oversight with the Synfuels Corporation?

Mr. MARES. It depends if the Synfuels Corporation accepts the project or not. If they choose to accept it, then they would replace DOE in that prime capacity.

The CHAIRMAN. What specific steps has the Department of Energy taken to assure that the socioeconomic effects on neighboring towns are mitigated?

Mr. MARES. Well, in the development of this project and in the evaluation of this, Tosco specifically—those aspects, the socioeconomic aspects, were considered early on in selecting them, on the basis that they have, in fact, considered these impacts.

There were discussions with the local authorities—community, county, as well as State—to consider these aspects. And my understanding is that there was very detailed consideration of them.

The CHAIRMAN. Do you feel that the local government officials are satisfied with plans of the Department?

Mr. MARES. That is my understanding, Senator.

The CHAIRMAN. Under what conditions or standards will the Federal Financing Bank be used?

Mr. MARES. The Treasury Department has recommended that they be used certainly on the first transaction and possibly on

others, although that has not been determined on a continuing basis; so that the first one would be by the FFB, but there has been no predetermination as to whether it would continue. Basically it is a Treasury Department call.

The CHAIRMAN. Mr. Roach, let me ask you a few questions if I could.

Doesn't the fact that this project has been granted all the necessary environmental permits offer some assurance of its ecological soundness?

Mr. ROACH. Mr. Chairman, I would like to defer to Mr. Markey on that. He comes from Denver and has followed this project, the history of this project, quite closely. If you don't mind, I would like to let him answer that question.

The CHAIRMAN. That's fine.

Mr. MARKEY. Mr. Chairman, we have followed quite closely all of the environmental permits and such. In strict legal terms, the project, as is presently proposed and as is permitted, will meet those various requirements.

UNCERTAINTIES CONCERNING ENVIRONMENTAL PROTECTION

However, there are a lot of uncertainties that remain concerning environmental protection, concerning the adequacy of the controls that have been proposed, concerning things that just are unknowns at this point. Those are not dealt with in present law.

The permits that have been proposed have actually recognized the uncertainty. And at least where the agency was able, the agency asked for considerable amounts of monitoring data and experimentation to be provided to the agency. Some of those are provided as part of the monitoring agreement for this contract.

As we mentioned in our prepared testimony and supplement to the prepared testimony, there are a lot of places where the monitoring—which is required by other agencies, as well as DOE under this contract—is perhaps not sufficient, especially in the biological area, some of the air quality area. Air quality is limited basically to what is under the Clean Air Act, and EPA did not go beyond that, even though there is some important data which might be helpful in designing controls for future projects—things like that.

Ultimately the environmental questions will have the greatest impact in terms of the cumulative effect of the industry. That is where the data that we obtain from the first—from the first projects becomes very important in determining what the total industry is going to look like. And it is important that that data be available to the public, to various agencies and such like that.

As we mentioned, some of the data might remain confidential. Some of the information submitted to the Secretary may never be made available publicly. Analysis submitted for recommendations of remedial action are dependent upon borrower judgments and not DOE's or other agencies'.

There is no remedial action that is necessary under this contract in response to problems identified by monitoring that are not presently regulated under law.

The CHAIRMAN. So, what you are telling me, to sum up, is that they have satisfied all of the current law, but you want to impose on them standards that don't exist.

Mr. MARKEY. Not exactly standards that don't exist. We want to find out what the problems might be.

The CHAIRMAN. When does that process ever end? What type of permits and laws would satisfy the Environmental Policy Center?

Mr. MARKEY. The Environmental Policy Center and Friends of the Earth.

The CHAIRMAN. Well, whoever.

I have a problem in situations like this, because I know I get accused of being antienvironment. I don't accept that. I think my record on the facts is quite different.

But would you ever be satisfied—I really wonder that—on a lot of these projects, because no matter what it is done or how far people go, or how much they comply, your answer implies to me that there is always something else that you would like.

Sure, there are uncertainties, and I don't believe you can sit here and tell me that this Congress or you or anyone else are smart enough to eliminate all of those uncertainties. It is not possible.

So, where does it end? What is necessary to satisfy you? I'm not saying I want to. [Laughter.]

I'm just asking what is necessary, when you start talking about going beyond the existing law?

Mr. MARKEY. There are two questions actually: What happens to this project specifically, No. 1; and what happens in terms of future projects.

The answer can be quite different with respect to ~~those~~ two concerns.

With respect to future projects, we hope that the first generation projects will provide the data and make it accessible to the public, so that we can have a full public debate, and so that Congress or the State legislature, or whoever makes that final decision, can make the determination as to what is reasonable and what isn't, in terms of additional requirements.

With respect to the Tosco project, we would hope—or we would have hoped that the agreement between the Department of Energy and Tosco would have laid out some situations where if there was a very serious threat to the environment, to public health and safety, to communities, that some type of remedial action could be negotiated between DOE or the various other agencies involved.

Certainly in certain areas, such as reclamation and air quality, there are some remedial actions that are provided for in existing permits. But there are broader things which we just don't know about. And we're not asking for the world, but we would like a chance at the world.

Mr. ROACH. Senator, if I might interject something here, I don't think that these are of interest solely to the members of the environmental community. All parties who are involved in the synthetic fuel area—and this includes industry, labor, as well as the environmentalists, have an interest.

There is a recognized need to begin to establish whether or not there will have to be additional standards, additional controls, additional guidelines. This not only satisfies our concerns, but it satisfies the concerns of industry to get on the way to know what they might expect as far as controls.

The CHAIRMAN. I don't disagree with that in determining what is necessary, because one of the most difficult things in this entire process has been uncertainty over and over again from industry's standpoint—not talking about synfuels, but in many areas. They have said, "We will take anything you give us if we know what it's going to be." We may not like it. We may protest. But we can't change the rules every other week.

I've seen projects where the rules have changed so many times they finally just give up. And I think that was the intent all along, to kill by delay. There was never any real intent to come up with reasonable compromises. I don't disagree at all with the general policy you just outlined of determining what is reasonable and what is not, and so that everybody knows on both sides what the rules are and then can comply.

Uncertainty is extremely difficult for people to deal with, particularly when you've got 20 percent prime interest rate and inflation the way we have had it. But I don't have any problem with your general concept of what you are trying to accomplish with it.

Gentlemen, there are other questions that I have. And I'm also certain that Senator Armstrong may have some questions for you. He had wished to be here this morning but, because of all of the conflicts that I previously mentioned, was not able to do so.

Unless there's anything else that any of you would like to add in closing, I would appreciate it if further questions do come from other members of the committee, if you could respond as promptly as you could in writing to those requests, so that we could complete the hearing record.

Is there anything else you would like to add?

[No response.]

The CHAIRMAN. I probably shouldn't end on this note before Mr. Mares, but I heard such a good story last night about the Department of Energy that I can't resist.

You probably heard it before, but it was that if we turned over the Sahara Desert to the Department of Energy, within 2 years we would have a shortage of sand in the world. [Laughter.]

So, thank you very much.

The hearing is adjourned.

[Whereupon, at 11:10 a.m., the hearing was adjourned.]

○